UNIVERSIDADE DA BEIRA INTERIOR
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Socio-emotional Competences in Children with Intellectual Disability
Development and Validation of a Socio-emotional Learning Programme

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Tese para obtenção do Grau de Doutor em
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Dedication

To my parents, for everything.

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"The best and most beautiful things in the world
cannot be seen or even touched.
They must be felt with the heart."

Hellen Keller

Presentations and publications produced as part of the Doctorate Thesis

Presentations

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Faria, S., Esgalhado, G. & Pereira, C. (2017, October). *Smile, Cry, Scream and Blush – Promote SEC in Children with ID*. Virtual presentation in The International Conference on Education & Educational Psychology (ICEEPSY) 2017. Porto, Portugal.

Publications

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Resumo

Ao longo do seu desenvolvimento, o indivíduo vai aprendendo e ampliando a sua capacidade de compreender quer as causas, quer as funções das próprias emoções, bem como reconhecer as diversas experiências de ordem emocional (Denham, 2006). Esta aprendizagem fornece ao indivíduo estratégias e competências que lhe permitem mostrar-se capaz de identificar as suas emoções, refletir sobre as suas causas e compreender como essas emoções condicionam o seu comportamento, visando a sua regulação. Assim, e tendo em conta a sua importância, estas competências devem ser consideradas e desenvolvidas desde cedo, despertando as crianças para a importância que as emoções e a capacidade de reconhecê-las e regulá-las de forma orientada e positiva exercem sobre o seu processo de desenvolvimento (Mayer & Salovey, 1999).

Nesta linha surge a Aprendizagem Socioemocional (ASE), que se apresenta como o processo de desenvolvimento de Competências Socioemocionais (CSE), fundamentais no desenvolvimento das crianças e que se consubstancia em programas dirigidos para a promoção destas competências. Efetivamente, os programas de ASE baseiam-se na compreensão de que muitos tipos diferentes de comportamentos problemáticos são causados pelos mesmos fatores de risco ou similares e a melhor aprendizagem emerge de relações de apoio que a tornam desafiadora e significativa (CASEL, 2003).

Assim, tendo em conta a importância da ASE junto de crianças que não apresentam risco desenvolvimental, as vantagens em trabalhar as CSE em crianças com Dificuldades Intelectuais e do Desenvolvimento (DID) serão ainda maiores, assumindo que compreendem mais do que conseguem expressar e que sentem as emoções de modo espontâneo, podendo modificá-las em conhecimento, nem sempre expresso de forma oral (Damásio, 2001).

Partindo destas assunções, esta tese teve como objetivo construir um programa de ASE, *Smile, Cry, Scream and Blush*, a implementar a grupos de crianças diagnosticadas com DID e integradas em turmas de ensino regular, a fim de verificar a sua eficácia no que concerne à promoção de CSE, incluindo a identificação das emoções, a expressão e a regulação emocional. A tese está organizada através da compilação de três artigos, dois publicados e um submetido para publicação, correspondentes a três capítulos. Os resultados apresentados no terceiro capítulo apontam para uma influência positiva da implementação do programa, uma vez que se observaram diferenças estatisticamente significativas entre os valores médios de pré-teste e de pós-teste no grupo experimental.

Palavras-chave

Competências Socioemocionais, Aprendizagem Socioemocional, Dificuldades Intelectuais e do Desenvolvimento, Programa de intervenção.

Resumo alargado

As emoções ocupam um papel crucial na existência e vivência do ser humano, uma vez que sem emoções "…o nosso mundo outrora colorido seria tingido de um cinzento pardo. Navegaríamos por aí sem objetivo, com velas soltas, desprovidos dos impulsos que motivam e direcionam as nossas buscas diárias…" (Gross, 1999, p.525). Elas são encaradas como um elemento central da vida e experiência humana, sendo consideradas essenciais para a compreensão do comportamento e funcionamento dos seres humanos em praticamente todos os ramos da psicologia e em diversas áreas das ciências sociais e biológicas (Lazarus, 2000). São construções psicológicas, nas quais intervêm as componentes cognitiva, de ativação fisiológica, expressivo-motriz, motivacional e subjetiva (Freitas-Magalhães, 2009).

Por conseguinte, as Competências Socioemocionais (CSE) surgem como um elemento fulcral para a compreensão do comportamento acima referido, integrando um processo de desenvolvimento que compreende três competências interrelacionadas: expressão emocional, conhecimento de emoções e regulação emocional. O desenvolvimento cognitivo permite que as crianças identifiquem as suas próprias emoções e as dos outros e as circunstâncias que levam à sua expressão. Essa compreensão emocional, por sua vez, permite que as crianças monitorizem e modifiquem as suas emoções para lidar com situações difíceis (Lewis, 2011), não se verificando, porém, em todas as crianças, com ou sem Dificuldades Intelectuais e do Desenvolvimento (DID).

Na verdade, a DID pode ser um dos fatores que afetam o conhecimento emocional do indivíduo, pois é organizado a partir da imagem, códigos verbais ou abstratos e requer o envolvimento de ações cognitivas e instrumentais como perceção, expressão e compreensão que estão perturbados ou confusos nesses indivíduos (Jasielska & Buchnat, 2017). Desta forma, as CSE podem e devem ser trabalhadas, não só em ambiente familiar, como também num contexto educativo. Assumindo que as escolas são lugares sociais para todos os alunos, considera-se que a aprendizagem é um processo social, no qual os alunos não aprendem sozinhos, mas em colaboração com os seus professores, na companhia dos seus pares e com o apoio das suas famílias. Efetivamente, acredita-se que o sucesso passa por conciliar a vertente cognitiva com a socioemocional, com vista a desenvolver o raciocínio, a responsabilidade e a resiliência (Sternberg, 2008) e as emoções podem facilitar ou dificultar a sua aprendizagem e o referido sucesso final na escola. Como os fatores socioemocionais desempenham um papel tão importante, as escolas devem atender a esse aspeto do processo educacional em benefício de todos os alunos (Zins, Bloodworth, Weissberg & Walberg, 2004).

Com efeito, e de acordo com a *Collaborative for Academic, Social and Emotional Learning* (CASEL), os programas de promoção de CSE assumem um papel preponderante no

desenvolvimento infantil para desenvolver cinco competências básicas nos alunos: autoconsciência, consciência dos outros, autogestão, habilidades de relacionamento e tomada de decisão responsável (CASEL, 2008).

Por conseguinte, a presente tese procura fornecer as bases teóricas das emoções e desenvolvimento socioemocional da qual emerge a seguinte questão de investigação: Podem os programas de ASE contribuir para o desenvolvimento das CSE em sujeitos com DID?

Para dar resposta à questão elaborada, formulam-se os seguintes objetivos:

1- pesquisar instrumentos já existentes para avaliar as CSE nas crianças e jovens em geral, e nas crianças e jovens com DID, em particular;

2- identificar e descrever programas já existentes de ASE dirigidos a crianças e jovens em geral, e a crianças e jovens com DID em particular;

3- construir um programa de ASE para implementar com crianças com DID;

4- validar a eficácia do referido programa.

A tese encontra-se organizada sob o formato de artigos científicos, dois revistos e publicados, e um terceiro submetido a publicação, cada um correspondente a um capítulo. Os referidos artigos procuram dar resposta aos objetivos formulados.

O primeiro capítulo, *Measurements to Assess and Programmes to Promote Socio-emotional Competences in Children with Intellectual Disability* (Faria, Esgalhado & Pereira, 2016), apresentado na *7th International Conference on Education and Educational Psychology* (ICEEPSY) e publicado no *The European Journal of Social and Behavioural Sciences,* tem como principal objetivo o levantamento e análise de instrumentos de avaliação de CSE em crianças com e sem DID, bem como de programas de intervenção que visam a promoção das referidas competências, com o intuito de selecionar o teste mais adequado a utilizar no estudo empírico e formar uma base sólida para a construção de um novo programa direcionado para crianças com DID.

Uma questão central à avaliação da eficácia das estratégias de promoção de CSE em crianças é a existência de instrumentos que avaliem as diversas componentes do funcionamento emocional, em crianças em idade escolar e pré-adolescentes. Neste sentido, importa analisar os modos de avaliação a que se tem recorrido, sendo que a avaliação das competências adquiridas é fundamental para a seleção diferencial das estratégias a implementar junto de diferentes populações, especialmente junto de populações envolvidas em Educação Especial (Moreira, Oliveira, Crusellas & Lima, 2012). Assim, no sentido de se proceder a uma intervenção eficaz, é fundamental conhecer os instrumentos de avaliação já existentes,

eficazes e adequados a diferentes faixas etárias e a sujeitos com características específicas, como a DID (Acquadro, Jambon, Ellis & Marquis, 1996).

Instrumentos como o *Affect Knowledge Test* (AKT) (Denham, 1986),o *Assessment of Children Education Skills* (ACES) (Schultz, Izard & Bear, 2004), o MSCEIT (Mayer, Salovey, Caruso, & Sitarenios, 2003), o *Emotion Matching Task* (EMT) (Izard, Haskins, Schultz, Trentacosta, & King, 2003),o *Bar-On Emotional Quotient Inventory* (Bar-On, 2006), o "Era uma vez…" de Fagulha (1994, 1997, 2002), o *Emotion Icons* de Rui Carreteiro (2015) e o *Test of Emotion Comprehension* (TEC), (Pons & Harris, 2000; Pons, Harris & Doudin, 2004) foram analisados a fim de se selecionar, pelas suas características, o mais adequado a crianças com DID. Foi com base nesta pesquisa que se concluiu que o *Test of Emotion Comprehension* (TEC) (Pons & Harris, 2000; Pons, Doudin & Harris 2004, Pons, 2016) na versão adaptada para a população Portuguesa, é o mais apropriado.

O TEC (Pons & Harris, 2000; Pons, Harris & Doudin, 2004) possui, na sua versão original, nove fatores correspondentes a componentes emocionais. O teste está dividido em blocos de histórias em ordem pré-estabelecida e apresenta as seguintes nove componentes: (1) o reconhecimento das emoções, baseado nas expressões faciais; (2) compreensão das causas externas das emoções; (3) compreensão do desejo despertado; (4) compreensão das emoções baseadas em crenças; (5) compreensão da influência da lembrança em circunstâncias de avaliação de estados emocionais; (6) compreensão das possibilidades de controlar as experiências emocionais; (7) compreensão da possibilidade de esconder um estado emocional; (8) compreensão da existência de múltiplas ou até contraditórias (ambivalentes) respostas emocionais ; (9) compreensão de expressões morais (Roazzi, Dias, Minervino, Roazzi & Pons, 2008).

O teste consiste num livro de ilustrações com histórias em banda desenhada com um simples enredo na parte superior de cada página. Em cada história são apresentados quatro possíveis desfechos representados por uma expressão emocional (há cinco opções: feliz, triste, com raiva, com medo, bem). É solicitado à criança que atribua uma emoção representada por uma expressão emocional em cada situação. O instrumento também está disponível em formato digital, no qual as histórias e as perguntas são narradas por uma voz feminina. A pontuação é feita automaticamente pela aplicação no computador. Neste estudo, foi utilizado o formato digital, com a versão masculina, uma vez que é a única disponível em Língua Portuguesa (Roazzi, Rocha, Candeias, Silva, Minervino, Roazzi & Pons, 2015). Obtém-se uma pontuação total que corresponde ao somatório da pontuação obtida em cada uma das nove dimensões, sendo que em cada uma a pontuação máxima é de 1. Quanto mais elevada a pontuação total no teste, maior a compreensão emocional.

Foi feita, paralelamente, uma análise aos programas de ASE existentes, testados ou fáceis de adaptar a crianças com DID. Assim, analisaram-se os programas PATHS (*Promoting Alternative*

Thinking Strategies) de Greenberg & Kuché (1993), o Programa de Educação Emocional do GROP (*Grupo de Recerca en Orientació Psicopedagogica*) (Bisquerra, 2003), o *Zippy's friends* (Mishara & Ystgaard, 2006), o *Incredible Years* (Webster-Stratton & Reid, 2004), o "Crescer a brincar" (Pereira & Moreira, 2000), o "Devagar se vai ao longe" (Raimundo, 2012) e o "Vamos sentir com o Necas", da autoria de Carvalho, Caldeira, Maia & Correia (s.d. referidos por Maia, s.d.). Estes programas forneceram uma base sólida para a construção de um novo programa, direcionado para crianças com DID.

O segundo capítulo integra o artigo científico *Smile, Cry, Scream and Blush-Promoting Socio-emotional Competences in Children with ID*, apresentado no 8th ICEEPSY e publicado no *The European Proceedings of Social & Behavioural Sciences* e visa o enquadramento conceptual relativo às emoções e às CSE, à ASE, a qual integra os programas de promoção de CSE, e aos contos ilustrados como forma de promover as CSE. A par, é construído um novo programa, *Smile, Cry, Scream and Blush*, baseado nos pressupostos dos programas de ASE, para promover essas competências em crianças com DID.

São criadas três mascotes que acompanham o programa ao longo das suas oito sessões: Pedri, uma pedrinha que não sente nem as coisas agradáveis, nem as coisas desagradáveis. Não sente nem as emoções positivas nem as negativas; Esponjinha, uma esponja que absorve todas as situações de forma muito intensa, chegando até a exagerar tanto nas emoções positivas como nas negativas; Coradinho, um coração muito ponderado e que reage de forma emocionalmente adequada às diferentes situações.

Todas as sessões começam com uma pequena história tendo como personagens principais uma, duas ou todas as mascotes. Depois de um diálogo motivacional, a sessão prossegue com uma segunda história, incidindo numa das emoções a serem trabalhadas e com uma personagem principal, animal ou humana. Assim, o programa é construído em torno de contos, ilustrados e com linguagem simples, uma vez que nos indivíduos com DID persiste um atraso linguístico em vários domínios, notavelmente no desenvolvimento sintático e na compreensão verbal. O uso de frases negativas, tempo verbal passado e futuro são especialmente difíceis para estas crianças (Thirion-Marissiaux & Nader-Grosbois, 2008). As ilustrações são validadas, numa primeira fase, por sete especialistas na área do desenvolvimento emocional e da literatura infantil, e numa segunda fase por um grupo de 20 sujeitos com DID, com idades entre os 8 e os 20 anos, e por um grupo de 20 sujeitos sem DID com as mesmas idades. É-lhes solicitado que se pronunciem sobre cada uma das expressões das personagens, referindo se concordam ou não, assinalando com Sim ou Não em cada ilustração.

A primeira sessão faz uma breve abordagem a todas as emoções que serão trabalhadas nas sessões seguintes: alegria, tristeza, medo, raiva, vergonha e orgulho; a oitava e última sessão também aborda todas as emoções e nela é feita uma consolidação de todo o trabalho

desenvolvido, relembrando todas as personagens do programa, perguntando às crianças quais gostaram mais, quais gostaram menos, com quais se identificaram mais, quais eram completamente diferentes de si, o que mudariam nas histórias, etc. Esta é uma sessão de consolidação de todo o trabalho desenvolvido ao longo do programa (Faria et al., 2017). O investigador poderá optar por contar as histórias às crianças através de um livro, no qual as ilustrações se devem apresentar em tamanho adequado de modo a que todos visualizem com clareza, ou através de um projetor, uma vez que o programa poderá ser disponibilizado em formato digital. Os materiais a utilizar depois da leitura e interpretação dos contos são fotocopiáveis, nomeadamente as silhuetas das personagens para as crianças desenharem, os cartões com as personagens expressando as várias emoções, bem como as rodas das emoções.

O estudo-piloto sugere que não são necessárias quaisquer alterações ao programa, tratando--se de um instrumento que faz uso de uma metodologia ativa e inclusiva, promovendo, assim, de forma lúdica e permanentemente motivadora, as CSE em crianças com DID.

O terceiro capítulo, onde se insere o artigo científico *Efficacy of a Socio-emotional Programme in Children with Intellectual Disability*, submetido para publicação no *Journal of Applied Research in Intellectual Disabilities*, descreve o estudo empírico, que tem como objetivo avaliar a eficácia do programa *Smile, Cry, Scream and Blush* numa amostra de 50 crianças diagnosticadas com DID. Para tal, recorre-se a uma investigação de tipo quasi--experimental e para a qual é constituído um grupo de controlo e um grupo experimental, ambos sujeitos à aplicação do *Test of Emotion Comprehension* (TEC) Pons & Harris, 2000; Pons, Harris & Doudin, 2004), como pré e pós-teste, e sendo o grupo experimental sujeito à aplicação do programa de intervenção.

Os resultados obtidos neste estudo evidenciam que o programa *Smile, Cry, Scream and Blush* é eficaz no desenvolvimento de CSE em sujeitos com DID. Os resultados totais obtidos no pré--teste do grupo de controlo (M=.48; DP=.24) e no grupo experimental (M=.54; DP=.19) e no pós-teste no grupo de controlo (M=.47; DP=.25) e no grupo experimental (M=.96; DP=.07) evidenciam os efeitos manifestamente positivos que o programa de intervenção teve junto do grupo experimental.

Embora a competência emocional seja considerada a partir de uma perspetiva de experiência pessoal, o facto é que ela é vivida em interação com os outros, estando interligada com a competência social, daí a importância em falar em competências socioemocionais. É importante reforçar que este conceito implica a aquisição de capacidades subjacentes à expressão de emoções, regulação socialmente adequada e conhecimento emocional, estando implicitamente relacionada com a identidade, história pessoal e com o desenvolvimento sociomoral da criança e jovem. Trata-se de um conjunto de competências centrais na capacidade de crianças e jovens interagirem, autorregularem-se e estabelecerem relações

gratificantes com os outros, na gestão do afeto no início e na continuidade do envolvimento evolutivo com os pares.

Note-se que, por maiores que sejam as limitações cognitivas do indivíduo, ele consegue interagir com o mundo através das suas emoções básicas, que parecem ser um canal competente de habilidades cognitivas, justificando a crença de Damásio (2001) quando afirma que crianças com Síndrome de *Down* compreendem mais do que conseguem expressar, pois sentem emoções de modo espontâneo, podendo transformá-las em conhecimento, nem sempre expresso oralmente.

Com efeito, tendo o impacto positivo dos programas de ASE sido relatado entre todas as crianças da escola, independentemente da raça, do contexto socioeconómico ou da localização dos alunos (Durlak, Weissberg, Dymnicki, Taylor, Taylor & Schellinger,2011; Taylor, Oberle, Durlak e Weissberg, 2017) e sendo evidentes as vantagens da ASE em crianças sem DID, também o serão em crianças com Necessidades Educacionais Especiais (NEE), onde se inclui a DID (Faria, Esgalhado & Pereira, 2017). A ASE, sendo a peça em falta na educação, ajuda a preencher uma lacuna na teoria e na prática em relação à melhoria dos resultados dos alunos com DID, além de abordar a convergência de habilidades individuais e a maneira pela qual o ambiente promove o desenvolvimento dessas habilidades e apoia a sua utilização (Elias & Arnold, 2006).

Apesar da evidente e demonstrada importância dos programas de ASE, são escassos os que se encontram direcionados para esta população. Da análise dos programas acima mencionados, não criados, mas testados em crianças com DID, obtém-se uma base sólida para a construção de um novo programa que visa atender às necessidades e características desta população, com recurso a linguagem, ilustrações e atividades motivadoras, simultaneamente simples, claras e objetivas (Faria, Esgalhado & Pereira, 2016).

Uma vez que os programas de ASE a que se teve acesso não foram construídos a pensar nesta população (Lightenstein, 2016), pretende-se colmatar esta lacuna, assim como pôr em evidência a necessidade e importância de promover as CSE junto destas crianças. Assim, pode-se afirmar o carácter inovador do presente estudo, uma vez que consideram as especificidades das crianças e jovens com DID aquando da construção do programa de ASE.

Apesar do relevo particular que as escolas dão ao desenvolvimento de habilidades cognitivas, o foco tem vindo, gradualmente, a mudar no que diz respeito ao encorajamento do desenvolvimento de aspetos socioemocionais, interpessoais e morais dos alunos. O objetivo da educação é, pois, preparar os alunos - academicamente, socialmente e emocionalmente - para o sucesso, hoje e no futuro. Mais especificamente, o objetivo é ajudar todos os alunos, com ou sem DID, a atingir todo o seu potencial - consistente com os seus próprios interesses e aspirações pessoais – e a interagir bem com os outros (Dusenbury & Weissberg, 2017).

Os objetivos do estudo foram alcançados, tendo-se verificado a eficácia de um programa concebido diretamente para promover as CSE em crianças com DID, programa este construído de raiz tendo por base pequenos contos, devidamente ilustrados, fazendo uso de materiais lúdicos para ser implementado ao longo de oito sessões, com a duração de 30-40 minutos cada sessão (Faria, Esgalhado & Pereira, 2017).

Os resultados deste estudo corroboram estudos recentes que alvitram que os programas de ASE funcionam como uma ferramenta de capacitação e proteção de crianças com DID, (Cavioni, Ornaghi & Grazzani, 2017) contribuindo para resultados claramente positivos no que diz respeito, não só, à identificação, expressão, regulação e gestão das emoções, mas também à diminuição de comportamentos agressivos e antissociais, bem como à diminuição de sintomas depressivos (Wilson & Lipsey, 2007; Horowitz & Garber, 2007).

Educar as emoções é a arte de ensinar o outro a ser humano (Céspedes, 2008). Desta forma, a educação socioemocional pretende ensinar as crianças a serem autoconscientes, conscientes do ponto de vista social, capazes de tomar decisões responsáveis e serem competentes na gestão pessoal bem como na gestão de relações, promovendo ainda o sucesso académico (Zins et. al, 2004). Trata-se de um processo essencial para o desenvolvimento integral do sujeito, sendo que as estratégias a adotar deverão ser adequadas ao desenvolvimento da criança com e sem DID, com repetição em diferentes idades para se adequar à compreensão e à sua capacidade (Goleman,1997).

Todos os alunos devem ter as mesmas oportunidades, sendo que a interação entre colegas em turmas inclusivas oferece oportunidade às crianças para desenvolver e expandir o seu reportório de CSE. Deste modo, é fundamental a intervenção neste sentido, a fim de promover as referidas competências, mediante programas específicos que potenciem o seu desenvolvimento.

Participar numa escola inclusiva implica aprender juntamente com outros e colaborar com eles em aulas partilhadas. Envolve um compromisso ativo com o que é aprendido e ensinado e ter uma palavra a dizer sobre como a educação é experienciada. "Mas participar também significa ser reconhecido e aceite por si próprio: eu participo contigo quando me reconheceres como uma pessoa como tu e me aceitares pelo que eu sou" (Booth, 2003, p.2).

Abstract

Throughout his development, the individual will learn and expand his capacity to understand both the causes and the functions of one's own emotions, as well as to recognize the various emotional experiences (Denham, 2006). This learning provides the individual with strategies and skills that allow him to be able to identify his emotions, to reflect on their causes and to understand how these emotions condition his behaviour in order to regulate them. Thus, given their importance, these competences must be considered and developed at an early age, awakening children to the importance that emotions and the ability to recognize and regulate them in a positive and oriented way on their process of development (Mayer & Salovey, 1999).

In this line, the Socio-emotional Learning (SEL) emerges, which presents itself as the development process of fundamental Socio-emotional Competences (SEC) in children and which is embodied in programmes aimed at promoting these competences. SEL programmes are based on the understanding that many different types of problem behaviours are caused by the same or similar risk factors and that better learning emerges from supportive relationships that make it challenging and meaningful (CASEL, 2003).

Thus, given the importance of SEL to children who are not at risk, the advantages of working SEC in children with Intellectual Disability will be even greater, assuming that they understand more than they can express and feel their emotions spontaneously, and can also modify them in knowledge, not always orally expressed (Damásio, 2001).

Based on these assumptions, this thesis had as main objective the construction and validation of a SEL programme, "Smile, Cry, Scream and Blush", in order to be implemented to groups of children diagnosed with mild ID and integrated into regular teaching classes, in order to verify its effectiveness with regard to emotional understanding. The thesis is organized by the compilation of three articles, two published and one submitted for publication, corresponding to three chapters. The results obtained in the third chapter point to a positive influence of the programme implementation, since statistically significant differences were observed between the mean pre-test and post-test values in the experimental group.

Keywords

Socio-emotional Competences, Socio-emotional Learning, Intellectual Disability, Intervention Programme.

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Chapter 3

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List of Acronyms

AAIDD	American Association on Intellectual and Developmental Disabilities
ACES	Assessment of Children Education Skills
AKT	Affect Knowledge Test
APA	American Psychological Association
ASE	Aprendizagem Socioemocional
CSE	Competências Socioemocionais
DID	Dificuldades Intelectuais e do Desenvolvimento
DSM-V	Diagnostic and Statistical Manual of Mental Disorders, 5th Edition
EI	Emotional Intelligence
EMT	Emotion Matching Test
GROP	Grupo de Recerca en Orientació Psicopedagogica
ICEEPSY	International Conference on Education and Educational Psychology
ICF	International Classification of Functioning, Disability and Health
ID	Intellectual Disability
IQ	Intelligence Quocient
MSCEIT	Mayer Salovey Caruso Emotional Intelligence Test
NEE	Necessidades Educativas Especiais
PATHS	Promoting Alternative Thinking Strategies
SBIS	Stanford-Binet Intelligence Scale
SEC	Socio-emotional Competences
SEL	Socio-emotional Learning
SEN	Special Education Needs
SI	Social Intelligence
TEC	Test of Emotion Comprehension
WISC-R	Wechsler Intelligence Scale for Children – Revised
WHO	World Health Organization

xxx

General Introduction

Behaviour and mind, conscious or not, and the brain that creates them, refuse to reveal their secrets when emotion is not considered and does not receive due merit (Damásio, 2010).

In line with this, the Social-emotional Competences (SEC) emerge as a key element for the understanding of the said secrets and integrate a development process that includes three interrelated competences: emotional expression, emotional awareness, and emotional regulation. Cognitive development allows children to identify their own emotions and those of others and the circumstances that lead to their expression. This emotional understanding, in turn, allows children to monitor and modify their emotions to deal with difficult situations (Lewis, 2011), but it does not occur in all children, with or without Intellectual Disability (ID).

ID may be one of the factors that affect the individual's emotional knowledge because it is organized from the image, verbal or abstract codes and requires the involvement of cognitive and instrumental actions such as perception, expression and understanding that are disturbed or confused in these individuals (Jasielska & Buchnat, 2017). In this way, SEC can and should be worked, not only in a family environment, but also in an educational context.

Schools are social places for all students, being learning a social process, in which students do not learn alone, but in collaboration with their teachers, in the company of their peers and with the support of their families. Thus, it is believed that success consists of reconciling the cognitive and social-emotional aspects aiming to develop reasoning, responsibility and resilience (Sternberg, 2008) and emotions may facilitate or hinder their learning and the mentioned success in school. Because socio-emotional factors play such an important role, schools must address this aspect of the educational process for the benefit of all students (Zins, Bloodworth, Weissberg & Walberg, 2004). But how can schools intervene to improve SEC in their students with ID? This was a question taken into account for the development of the present study. As a teacher, I find myself year after year with anxious and impulsive students who are unable to regulate their negative and social emotions, triggering situations of aggression with teachers, peers and the family, worsening academic results and even gaining an aversion to school. It is believed that an effective intervention focused on SEC can reduce the behaviours mentioned above, contributing to the overall wellbeing, a constant motivation and a good school environment.

Thus, according to the Collaborative for Academic, Social and Emotional Learning (CASEL), SEL programmes play a preponderant role in child development to develop five basic competences in students: self-awareness, awareness of others, self-management, relationship abilities and responsible decision making (CASEL, 2008).

Therefore, the present thesis tries to provide the theoretical basis of the emotions and social-emotional development from which the following research question emerges: Can SEL programmes contribute to the development of SEC in subjects with ID?

In order to answer the elaborated question, the following objectives are formulated:

1- research existing instruments to assess SEC in children and young people in general, and in children and young people with ID, in particular;

2 - identify and describe existing SEL programmes aimed at children and young people in general, and children and young people with ID in particular;

3- build a SEL programme to implement with children and young people with ID;

4 - validate the effectiveness of this programme.

This thesis is organized in the format of scientific papers, two revised and published, and a third submitted for publication, each corresponding to a chapter. These articles aim to meet the stated objectives. The first chapter, "Measurements to Assess and Programs to Promote Socio-emotional Competencies in Children with Intellectual Disability" (Faria, Esgalhado & Pereira, 2016), presented at the 7th International Conference on Education and Educational Psychology (ICEEPSY) (see Appendix A) and published in The European Journal of Social and Behavioral Sciences has as main objective the survey and analysis of SEC assessment tools in children with and without ID, as well as intervention programmes aimed at promoting those competences, with the purpose of selecting the most appropriate test to be used in the empirical study and to form a solid basis for the construction of a new programme directed to children with ID. This research led us to the Test of Emotion Comprehension (TEC) (Pons & Harris, 2000; Pons, Doudin & Harris 2004, Pons, 2016) in the version adapted to the Portuguese population. Authorization was requested to use the mentioned test (see Appendix B).

The second chapter integrates the scientific paper "Smile, Cry, Scream and Blush-Promoting Socio-emotional Competences in Children with ID", presented in the 8th ICEEPSY (see Appendix C) and published in The European Proceedings of Social & Behavioral Sciences, and that addresses the conceptual framework on emotions and SEC, SEL, which integrates SEC promotion programmes, and illustrated short stories as a way to promote SEC. At the same time, a new programme is built, "Smile, Cry, Scream and Blush", based on the assumptions of SEL programmes, to promote these competences in children with ID, following and respecting several steps necessary to be validated as an effective instrument for the training of these competences (Faria, Esgalhado & Pereira, 2017), by experts in the area of emotional development and children's literature (see Appendix D) as well as by children and adolescents with and without ID (see Appendix E). All stages of programme's construction and implementation are described, as well as their application in a pilot-study aimed at identifying possible difficulties in contents or understanding in tasks, so that they can be solved before their application in the empirical study.

The pilot-study suggests that no changes to the programme are needed, being an instrument that makes use of an active and inclusive methodology, promoting SEC in children with ID in a playful and permanently motivating way.

The third chapter, which includes the scientific paper "Efficacy of a Socio-emotional Programme in Children with Intellectual Disability", submitted for publication in the Journal of Applied Research in Intellectual Disabilities, (see Appendix F) describes the empirical study, which aims to evaluate the effectiveness of the programme "Smile, Cry, Scream and Blush" in a sample of 50 children with ID. For this purpose, a quasi-experimental type investigation is used, for which a control group and an experimental group were created, both subject to the application of the Test of Emotion Comprehension (TEC) Pons & Harris, 2000; Pons, Harris & Doudin, 2004), as pre and post-test, and being the experimental group subject to the application of the intervention programme. Parental consent (see Appendix G) as well as the consent of the directors of the school groupings involved in the study (see Appendix H) were crucial to the development of the study. Likewise, completing a data questionnaire (see Appendix I) by parents and guardians was significant for the characterization of the sample.

Finally, the main conclusions are presented and discussed, emphasizing the importance of SEL programmes in general and the programme "Smile, Cry, Scream and Blush", in particular. The limitations of the study are recognized and some indications for future research are suggested, assuming the advantages that this type of intervention programmes have among children and young people with ID.

Theoretical Framework

Emotions

Emotion, from the Latin *emovere*, means to move or to shift, being, therefore, a set of manifest reactions that, in the face of certain affective conditions, mobilize the subject for action (Martins & Melo, 2008). Freitas-Magalhães (2009) adds that this, in turn, derives from *movi*, which literally means to set in motion, to move. So, first of all, emotion refers to movement.

Ever since William James asked in 1884, what an emotion was, many definitions have emerged. If there is no agreed definition, there are, however, three elements considered essential to define emotion (Dias, Cross & Fonseca, 2008). The first one refers to the presence of physiological reactions or alterations, and each emotion seems to have its own pattern of physiological reactions, which may include alterations in the autonomic nervous system (Cacioppo & Gardner, 1999). The second includes actions of attack, avoidance, approach or withdrawal of a place or a person, or even the adoption of a certain body posture, suggesting a specific coping response (Lazarus, 1991). The third element refers to the subjective experience of emotion, that is, it refers to what people describe about what they are experiencing when they feel angry, anxious, or proud, or even when they deny their emotions, when they describe the conditions that generate an emotion or when they indicate the objects in question or the beliefs underlying their reactions (Lazarus, 1991; Vallerand & Blanchard, 2000).

According to Goleman (1997), emotions are essentially impulses to act, plans of insistence to face life. In this way, emotions are seen as life navigation maps, sometimes repetitive, but very useful in difficult situations and can guide our immediate response in various situations.

Emotions play a crucial role in the existence and experience of the human being, since without emotions "...our once coloured world would be dyed grey brown. We would sail aimlessly with loose sails, devoid of the impulses that motivate and direct our daily pursuits... "(Gross, 1999, p.525)

The diversity and complexity of the emotional phenomenon justify the multiplicity of perspectives, as well as the divergence of viewpoints. However, there appears to be unanimity in stating that emotions constitute a multifaceted phenomenon that lies in a space of intersection between body and mind (Doron & Parot, 2001; Estrada, 2008).

Throughout life, emotions play a key role in human functioning, saturating our thoughts, behaviour and experiences in such a profound way that we often forget about their important

function. They motivate our most important decisions, they are at the core of social relationships and they are fundamental to socialization and cultural processes (Healey & Consedine, 2011).

Frijda (2004) states that emotions are defined as intrapersonal or interactive states. Being intrapersonal states, their essence is the feeling which in turn consists of an experience that is not reducible to bodily sensation or cognitive judgment. Being interactive states, emotions are above all processes of establishing, maintaining or disrupting relationships between the person and the internal or external environment, when such relationships are meaningful to the individual (Campos, Campos & Barret, 1989).

There is still no unanimity in the definition of emotion, making it difficult to find an explanatory and consensual theory of emotions, because its diversity can be explained by the emphasis given by the different theories to the specific functions as well as to cognitive, physiological, behavioural, genetic, environmental, relational and constitutional factors. Some authors speak in evolutionary, motivational, cognitive, neurochemical and social theories, having as reference the nature of emotion (Carlson & Hatfield, 1992). Others refer to emotions categorizing them as primitive, phenomenological, behavioural, physiological, cognitive, developmental, social, and clinical (Strongman, 1996).

Neurophysiological theories refer to emotion as being a neurophysiological activation, an excitation in which the motivational energy is translated as activation, which materializes in physiological mechanisms. There is an internal state, a stimulus, that impels the animal to action linked to hedonism and to the survival of the species (Vale, 2012). According to Damásio (2003), the human neurobiological system is prepared to deal with adaptation challenges, being equipped with systems of different complexities that integrate in a hierarchical way. At the most primitive levels of regulation there are the metabolic processes, the basic reflexes and the functioning of the immune system. At the next level there are the behaviours associated with pain and pleasure; and in a more complex level we can speak of motivations and instincts. It is in the higher levels of organization that emotions are and which, according to Damásio (2003) are actions or movements, many of them public, visible to others, insofar as they occur in the face or in the voice, that is, in specific behaviours. Thus, some of the components of emotions are readily visible and observable while others are more difficult to detect because they include psychophysiological manifestations. This neurologist argues that we think with the body and with our emotions, there being no pure reason, assuming that without emotions there could be no assertive reasoning, and attributing to the emotions, on the one hand, a subjective, experiential and behavioural side and, on the other hand, a neural and chemical one. Many of the psychological perspectives of emotions maintain points of contact with this model presented by Damásio.

Another perspective is advanced by behaviourist theorists, shifting the emphasis from physiology to directly observable behaviour, thus criticizing the subjective perspective which, based on subjective reports rather than observable data, could not be considered scientific (Vale, 2012). Gray (1987) defines emotions as internal states provoked by events outside the organism by certain contingencies and presents three systems that rule emotions: (1) the approach system where the focal point is the reinforcer reward; (2) the behavioural inhibition system, where the predominant stimulus is that of punishment; and (3) the system of fight or flight in which prevails unconditional punishment. Cognitivist authors assume a different position in which, although starting from subjective experience, they focus on the processing of information and cognitions, emphasizing the implicit or explicit evaluation of the phenomenon that triggers emotion (Queiroz, 1997). In addition, they emphasize the role of thought in the genesis of emotion, based on the assumption that an emotion can only be triggered after cognitive perception and assessment, with interactivity between cognition and reflex function, and being the reason to control the behaviour. Lewis (2004) highlights the developmental processes and the relationship between the progressive differentiation of emotional states and the maturation of neurological systems, the cognitive development and socialization processes (Strongman, 1996) as well as the self-development (Saarni, 1999). In this perspective, emotional states develop throughout life, starting from a relative undifferentiation based on emotional activation, and from two base stages (positive or negative) to a progressive differentiation based on the emotional activation and experiences of the subject. Another component of the emotions relates to the emotional experience, in which the subject's interpretation and evaluation of his emotional states and the way he perceives the emotions are emphasized (Lewis, 2004).

Contemporary functionalist perspectives emphasize the important roles that emotions play, as they prepare for necessary behavioural responses, harmonize decision-making, activate memory for important events, and facilitate interpersonal interactions. However, emotions can both hurt and help, as this happens when they occur at the wrong time or at the wrong level of intensity (Gross & Thompson, 2007).

According to a biological perspective, biology is the primary cause of emotion. The main representatives of this perspective are Izard (1994), Ekman (1992) and Panksepp (2004). Izard (1994) argues that emotional responses are early and non-cognitive, automatic, unconscious and mediated by subcortical structures. For Ekman (1992) emotions are adaptive responses with phylogenetic origin, they have a rapid onset, a short duration and may occur automatically and involuntarily. Emotions happen when we react emotionally long before we are aware of this emotion. For Pankseep (2004), emotions arise from neuronal circuits of genetic origin that regulate brain activity, which would be demonstrated by the difficulty in verbalizing emotions, by emotional induction by electrical stimulation and by the occurrence of emotions in children and other animals.

Inserted in the biological perspective, Izard's theory of differentiated emotions is one of the most relevant models in the field of psychological research, emphasizing the innate nature of emotions, their basic motivational functions (Izard & Ackerman, 2004; Izard et al., 2002; Izard, 2002) and the close relationship between emotions and personality (Abe & Izard, 1999a). Although some environmental influences are admitted, emotions are pre-programmed and form a system independent of other systems, such as the cognitive. However, it is postulated that during development, different systems, although independent, are establishing different links between them (Abe & Izard, 1999b).

For his part, Panksepp (2004) defends the theory of central affective programmes which is based on the idea that evolution endowed humans with a cerebral system with an affective function, existing basic emotions that constitute an evolutionary patrimony and that are generated by specific neural processes. In this way, the basic emotional circuits play an important role in the survival and adaptation of the human being.

For the cognitive perspective, cognitive activity is the prerequisite of emotion. The main representatives of this perspective are Lazarus (1991), Scherer (2000) and Weiner (1995). Lazarus (1991) demonstrates the personal importance of events and without realizing this importance there is no reason to react emotionally. The cognitive assessment that individuals make of events marks the emergence of emotions. Scherer (2000), in turn, identifies cognitive assessments that generate emotions, and Weiner (1995) produces an attributional analysis of emotion that focuses on the thinking and personal reflection that we undertake in the face of successes and failures of life. According to this perspective, all its proponents share the assumption that different emotions arise in response to different structures of meanings (Frijda, 1988).

It is increasingly evident that emotions are manifested either physically – in the organs, guts, skin and brain - or psychologically - in thinking, affection, behaviour, emotions regulation and even in non-verbal communication - both of which are interconnected, not acting independently (Estrada, 2008).

According to the constructivist perspective, emotions are seen as a social construction, acquired by learning and essentially determined by the specific norms and social rules of a given culture (Averill, 1986). Along with this approach, emotions could not be understood only as individual subjective experiences, but as an emerging phenomenon in social life. For the constructivists, emotions are social constructions acquired through socialization, which is why they depend and vary according to time and space.

The different perspectives present different taxonomies of the emotions, as is the case of the Panksepp's categorization (2004) that considers important to differentiate the affective processes and, for this, proposes a classification in three categories. Category 1 integrates

the reflex acts, that is, quick and ephemeral emotional responses that accompany the duration of the inducing situations; example of this category is the gustatory aversion. Category 2 includes basic emotions such as fear, anger, sadness, happiness, affection and interest, physiological, cognitive and affective behavioural responses that extend in time beyond the inducing situations. Finally, category 3 integrates the highest feelings, where social emotions such as shame, guilt, contempt, envy, humour, empathy, sympathy and jealousy are found, some of these being the junction of primary affections with higher cognitive processes (Panksepp, 2004, 2010; Panksepp & Watt, 2011). Of all categories, Panksepp (2004) seems to be more interested in category 2, the basic emotions, considering the existence of seven basic emotional systems that originate in the subcortical regions and which are responsible for behavioural, physiological, affective and cognitive responses to adaptation problems. The seven basic emotional systems are seeking, anger, fear, sexual desire, care, panic and fun. They underlie, respectively, the motivational systems of expectation, anger, anxiety, sexuality, protection, separation and happiness.

Damásio (1995), in turn, establishes differences between the emotions we experience in childhood and the emotions we experience in adults. He proposes to call the first primary emotions and the second secondary emotions. Later, the same author distinguishes three categories of emotions: background emotions, primary or basic emotions, and social emotions (Damasio, 2000). Background emotions correspond to the body's regulatory responses and contribute to overall wellbeing or malaise. Primary or basic emotions are generated through distinct neural and chemical circuits and they are universal. Examples of basic emotions are fear, anger, disgust, surprise, sadness and happiness. Finally, social emotions, such as sympathy, compassion, embarrassment, guilt, pride, jealousy, envy, gratitude and admiration, integrate components of the background emotions and primary emotions, being biologically determined, but also socially learned (Damásio, 2000).

In turn, Frijda (1988) defines emotions as subjective experiences, whose core is the pleasure or pain, and describes them through laws. This description presupposes two assumptions: the emotions present regularities that come from the causal mechanisms that generate them and humans do not create or control the emotions to their pleasure; they obey the laws of emotions. These derive from the emotional process and refer to the several phases of this process: (1) the law of situational meaning (emotions are generated as responses to meanings attributed to situations); (2) the law of concern (emotions occur to the extent that events relate to objectives, motives, and concerns); (3) the law of apparent reality (emotions are instigated by events perceived as real); (4) the laws of change (what instigates emotion are actual or expected changes), habituation (continued pleasures and sufferings disappear with time), feeling of comparison (the intensity of an emotion is dependent on the relationship between an event and a reference frame); and (5) the hedonic law (pain remains in time, although it does not happen the same with pleasure) which characterizes the instigation of

emotion. The law of the emotional moment conservation, which concerns the persistence of emotion, is also postulated, as well as the law of closure, which has to do with the modularity of emotion, and finally, the law of care with the consequences and laws of the lighter charge and the gain, which are part of the emotion regulation (Frijda, 1988).

Emotions are seen as a core element of human life and experience, being considered essential for the understanding of the behaviour and functioning of human beings in almost all branches of psychology and in several areas of the social and biological sciences (Lazarus, 2000). They are psychological constructs, in which the cognitive, physiological activation, expressive-motive, motivational and subjective components intervene (Freitas-Magalhães, 2009). According to this author, as a physiological response, emotion is a complex state of feeling that includes conscious experience, explicit and internal responses, and energy to motivate the body to action.

The multiplicity of definitions and theories about emotions allow not only to highlight the complexity of this construct, but also to offer explanatory tables that are considered complementary.

The functions of emotions

Emotions have a signalling function and can be considered as the mechanism by which cognitive and action systems indicate that a given situation is favourable or not in relation to its objectives (Frijda, 1994). On his turn, Averill (1994) recognizes that an emotion can be functional or dysfunctional depending on the theoretical perspective adopted. Freitas--Magalhães (2009), in turn, adds three functionalities to the emotions: first, they prepare for action, as they serve as a catalyst between the environment and our conduct. Then the emotions prepare the conduct, since the contact with certain emotional experiences will originate a social learning to deal with future situations. Finally, emotions regulate interaction, since in expressing emotion we are contributing to communication at the social level and this will be easier to process and will help to understand certain defence mechanisms.

Ekman (1992) and Davidson (2000) consider that emotions trigger physiological changes necessary for the organism to respond in an evolutionarily adaptive way and prepare for action, being that each specific emotion not only prepares the organism for a set of actions, but also modifies the cognitive activity, since the emotion can impede the cognition, but it can also promote it. At another angle, emotions provide affective information, since being aware of our feelings allows us to make value judgments and make decisions based on what we feel. Another function of emotions is that they facilitate phylogenetically adaptive

responses; in addition, they also organize the subjective, behavioural, and physiological components of the emotional process, which have specific functions and interpersonal functions.

Izard and Ackerman (2004) refer to discrete emotions, these being interest, happiness, sadness, anger, disgust and fear. The functions of interest are, fundamentally, to motivate the exploration and the learning, as well as to ensure that the individual maintains an investment relation with the reality that surrounds him. Happiness has the functions of broadening the openness to experience, alleviating stress, sustaining coping mechanisms and contributing to the general wellbeing of those around us through their expression. The functions of sadness allow for closer social bonds, slow down the motor and cognitive systems, and communicate the self and others that there is a problem. Anger has the functions of preventing aggression, mobilizing and sustaining energy to a high degree. The disgust functions are rejecting situations and people who displease us and warn others that their behaviour displeases us. Finally, the function of fear is to motivate the escape of dangerous situations.

In short, although the central role of emotions in human functioning appears to be assumed by several authors, its definition is not always consensual, varying according to the emphasis given by the different theories to their specific functions, to the weight of genetic, constitutional, environmental and relational factors, or even to their relation to other systems such as cognitive, linguistic or motor (Fridja, 2004). Thus, there is an absence of unanimity regarding the definition of emotion and an explanatory model of it, as well as of their functions, which is considered not to be an impediment to the understanding of this process, but rather a contribution that enriches the concept by the complementarity resulting from different approaches.

Socio-emotional Development

It is difficult to delimit the conceptual boundaries between Social Intelligence (SI) and Emotional Intelligence (EI), even for the holistic understanding of the person.

The term "Emotional Intelligence" was first used in an article with the same name, in which it is presented as a subclass of Social Intelligence, whose abilities would be related to the monitoring of feelings and emotions in the individual and in others, in the discrimination between both and in the use of this information to guide thinking and action (Salovey & Mayer, 1990). In 1997 one of EI main explanatory models emerges. Mayer, Salovey & Caruso (1997) present an enlarged, clarified and better organized review of the 1990 model, which emphasized the perception and control of emotion but omitted thinking about feeling.

According to these authors, EI involves: (1) the ability to accurately perceive, evaluate and express emotions; (2) the ability to perceive and/or generate feelings when they facilitate thinking; (3) the ability to understand emotion and emotional knowledge; and (4) the ability to control emotions to promote emotional and intellectual growth.

Another relevant model is described by Bar-On (1997), which lists a set of personality characteristics translated into a definition of EI that integrates a set of non-cognitive abilities and competences that influence each person's ability to succeed in the demands and pressures of everyday life such as: (1) intrapersonal skills, such as emotional self-awareness and assertiveness; (2) interpersonal abilities such as relationships with others, social responsibility and empathy; (3) adaptive behaviours such as problem solving and flexibility; and (4) stress management and overall temperament such as happiness and optimism.

On the other hand, Goleman (1997) emphasizes competences related to the knowledge of the self and others' emotional states, the management of the emotions, the self-motivation and the management of the interpersonal relations. According to the models of Bar-On (1997) and Goleman (1997), it is evident the difficulty in separating the emotional from the social, combining intellectual characteristics of personality with social competences. Goleman (1997) also establishes a relationship between SI and EI, integrating cognitive and emotional elements at the level of social awareness and behavioural elements at the level of social ease.

Regarding the SI, it is observed that throughout the twentieth century the concept emerges progressively as a multifaceted concept, integrating influences from classical and contemporary approaches to the construct and ways of assessing it (Candeias, 2002).

According to a psychometric perspective, SI is the ability to understand verbal and non-verbal behaviours, which gives rise to the notion of social insight, that is, the ability to understand behaviours in context; and yet, the notion of social knowledge, which covers rules and labels that define social behaviours, culturally learned (Wong, Day, Maxwell & Meara, 1995).

The psychometric perspective does not assume the possibility that the various factors, dimensions or aptitudes of the intelligence do not remain constant over time, a question to which the developmental perspective intends to respond. Thus, this approach focuses less on a static view of intelligence measurement, evolving towards a vision focused on the development and maturation of mental schemas inherent to cognitive functioning (Almeida, Guisande & Ferreira, 2009). To characterize the development of this SI approach we find Kohlberg's theory of moral reasoning stages (1976), and Selman's (1976) theory of social perspective.

Effectively, the cognitive processes, mechanisms, and strategies used in the intelligent act itself, designed as problem solving applied to social situations are the focus of analysis of the SI functionalist perspective. Empirical data suggest that competences of sensibility and causal thinking can strengthen consequential thinking and the production of solutions (Shure, 1982). On the other hand, these competences have been related to the levels of development and cognitive demands of interpersonal tasks. For example, thinking about alternative solutions is considered to be the most consistent predictor of social adjustment in pre-school children. In turn, the means-ends thinking is one of the determining competences in the social adjustment of children, adolescents and adults (Spivack, Platt & Shure, 1976). In the explanation of the social knowledge in interaction, the socio-cognitive and motivational variables acquire special emphasis, which supports a cognitive perspective of SI (Sternberg and Grigorenko, 2003). Being the motivation fundamental for the individual to try to solve problems, Ford (1995), in his explanatory model of behavioural efficacy, emphasized the role of motivational processes in SI. Such processes include interest and concern to achieve goals (Ford, 1986), the action of personal beliefs about one's abilities and context, that is, confidence in one's own abilities and environment increases the motivation to achieve goals (Bandura, 1986) and emotional expressiveness, that is, the tendency to respond emotionally to emotional successes/failures, mediates efforts to be socially intelligent (Ford, 1995). It is assumed that the person can construct social knowledge starting from the concepts that he has of himself, of the others, and of the world in general.

In this way it is already evident the dissociation between SI and EI at the conceptual level, being that social learning is a process by which each person develops his capacity to integrate thought, emotion and behaviour to reach and fulfil important social tasks (Costa & Faria, 2013), that is, competences that help one to deal with oneself, to relate to others and to perform tasks in a competent and ethical way (Tacla, 2014).

Emotional development is influenced by changes that occur in other areas, such as motor or linguistic and cognitive, while it constitutes a source of influence for the social development and the construction of relations (Campos, Frankel & Camras, 2004). In this manner, emotional development reflects social experience, including the cultural context, hence it makes no sense to dissociate it from social development. So, the focus of the present study is precisely the socio-emotional development, which is a designative of competences such as self-knowledge, social awareness, ability to resolve conflicts, etc. that allow dealing with different situations throughout life (Gondim & Borges-Andrade, 2009). Therefore, assuming that emotions are integrated into socio-cognitive processes, SEC are learned and developed to facilitate the insertion of the individual into society, besides that they are mediators of the interpersonal relations, causing individuals to approach or depart from their peers or situations according to their culturally shared interests and values.

In fact, emotional systems play a fundamental role with unique contributions in human functioning (Damásio, 2003), and brain development itself is influenced, and at the same time influences, the child's emotional development (Shore, 1994). Emotions function as a sort of "central organizer" (Siegel, 1999) while brain circuits of emotions clearly evidence the plasticity and brain-transforming capacity (Davidson, 2000).

Saarni (2011) shows that a child's encounters with an environment can be seen as dynamic transactions involving multiple components related to emotion - expressive behaviour, physiological patterns, action tendencies, goals and motives, social and physical contexts, evaluations and experiential feelings - that change over time as the child matures and in response to changes in environmental interactions.

Jones, Gebelt, and Stapley (1999) also highlight three phases of emotional development: acquisition, refinement, and transformation. The first includes three main aspects, such as the reflexive affection, the temperament and the acquisition of labels for emotional categories. Babies express emotions that have nothing to do with learned behaviours but are part of the repertoire of reactions inherent in the human species, so acquiring the name of reflexive affections. However, the emotional expressions that babies exhibit may have different intensities and triggering factors, which already relates to the individual temperament (Vale, 2012). Regarding the labelling of emotions, this occurs during the first years of life and appears to be made almost automatically. However, there are specific cases in which, for example, delinquent and aggressive children do not distinguish signals of anger from signals of pain in themselves or others, so it is necessary to teach these children the signals corresponding to the emotions (Jones, Gebelt & Stapley, 1999).

In the second phase, refinement, changes will occur at the level of the signals. The vocal cry takes the form of an interjection or something spoken and then the association of emotional responses to new contexts and people appears. These refinements may depend on cultural models or direct training, since the acquired emotions may be disguised or exaggerated (Jones, Gebelt & Stapley, 1999).

The third and final stage, transformation, deals with changes and involves two different processes. On the one hand, a certain emotional state will influence the processes of thinking, acting or learning in this state, which leads to the statement that different emotional states can stimulate different ways of processing information. On the other hand, we have the emotional process itself that is transformed by experience and knowledge. This way, the context and meaning of emotion arise as a personal construction.

The development context for socio-emotional growth depends on internal and external variables, both extensively studied, emphasizing the importance of distinguish between the factors that are associated with the child and those that are the result of experiences with

others (Shulman, 2016). The child's encounters with the environment can be seen as dynamic transactions involving multiple components related to emotion (e.g. expressive behaviour, social and physical contexts or experiential feelings) which change over time as the child matures and responds to changes in environmental interactions (Saarni, 2011).

A child's critical emotional events involve developing a deep emotional connection with parents and caregivers, being that the first developmental change in the emotional domain occurs at birth (Shulman, 2016). Soon after birth, babies show signals of disruption, interest, and repugnance. In the months that follow, these primary emotions differentiate into happiness, anger, surprise, sadness, shame, and fear (Bateson, 1984). Emotions concerning the self-awareness, such as empathy, jealousy, embarrassment, shame, guilt, and pride, do not emerge until the second or third year of life, after children have developed self--awareness, which is present at around 18 months, and it is necessary before young children are able to reflect on their actions and evaluate them according to social rules (Izard & Malatesta, 1987; Gralinski & Kopp, 1990). It is important to note that these emotions depend on the internalization of parental patterns of behaviour and it is between 7 and 8 years old that the patterns that produce the social emotions appear to be completely internalized (Harter, 1993).

Socio-emotional experiences with primary caregivers as well as interactions with other children and adults early in life pave the way for future academic and personal outcomes while reinforcing other areas of development (Konold & Pianta, 2005; Denham & Brown, 2006). The attachment relationship with caregivers is the initial context in which a child's emotional life develops. If caregivers meet the baby's needs, the baby internalizes the notion that the world is a safe place and that others are trustworthy and receptive. The caregiver--child relationship sets the foundation for the development of SEC and determines the stage for future social relationships (Saarni, 2011). As children develop SEC, they gain the confidence and competence to build relationships, solve problems, and deal with emotions (Parlakian, 2003). In contrast, a child who experiences the world as unpredictable, indifferent, or hostile spends a great amount of self-managed emotional excitement, being that an insecure attachment is associated with socio-emotional incompetence, especially in the areas of emotional understanding and regulated anger. Similarly, socio-emotional maladjustment may impede children's ability to function in family, school or other contexts, moreover it hinders self-regulation (Campbell, 2006).

Regarding self-regulation, it is important to point out that it is the basis of socialization and that it integrates all the domains of development - physical, cognitive, social and, above all, emotional. Emotional regulation describes an individual's ability to respond to environmental stimuli with a variety of emotions in a controlled manner; in other words, it is the ability to measure the appropriate level and amplitude of the emotional response to a given situation (Panfile & Laible, 2012). The development of emotional regulation evolves throughout life,

being that children from 1 year old on are able to unconsciously regulate their emotions, and between 3 and 5 an especially important period arises for children's understanding of the emotional responses of others, as well as for their own understanding of situations that may evoke specific emotional responses (Cole, Dennis, Smith-Simon & Cohen 2009). The growth in self-regulation parallels the development of emotions about self-awareness, such as empathy, shame, and guilt and in most children its complete development takes at least 3 years (Kopp, 1982), when the child enters the school.

Emotional life in the school period is particularly complex. With the entrance in school children extend their range of social relations and changes occur in the social systems that are part of their life. They are expected to be able to initiate and maintain close relationships with their peers and from these relationships, through discussion and communication of emotions, a greater emotional knowledge and prosocial behaviours and a demonstration of results in terms of learning and academic performance arise (Lopes, Rutherford, Cruz, Mathur & Quinn 2011).

At 7 or 8 years old, the child internalizes the emotions of shame and pride, emotions that depend on the awareness of the implications of their actions and the type of socialization they have received, affecting their opinion of themselves (Harter, 1993). It is also at this stage that they employ strategies of emotional regulation as well as problem-solving, however, when they note that they have no control over the situation, they tend to employ more avoidance and withdrawal strategies or even to resort to the expression of negative emotions through aggression (Saarni, 1997).

As they grow, they can better understand and control their negative emotions because they know what makes them angry, fearful or sad and how others react when they show these emotions being able to control and adapt their behaviour accordingly (Rotenberg & Eisenberg, 1997). Throughout the first cycle, children are increasingly able to identify emotions and interpret them within specific social contexts, besides that, when developing SEC, which include emotional expression and understanding, they are also learning to live in a complex society and to develop prosocial behaviours (Raver, Garner, & Smith-Donald, 2007).

Studies indicate a change in the concept of emotion between the ages of 6 and 11, being that younger children place greater emphasis on the observable components of emotion, while older children give more prominence to mental and internal aspects (Harris, Olthof & Terwogt, 1981). In this period, the temperament, being the characteristic way of the person to approach or react to people or situations and which has been termed the *how* of behaviour, is characterized by some stability and a relative continuity of the previous characteristics, but there is, however, refinement of the anterior attentional system and, consequently, of the child's self-regulation capacity (Derryberry & Rothbart, 2001). This is a key period for the development of self-concept and the perception of social competence,

very nourished by comparison with others, so that the emergence of social emotions facilitates this process of social comparison and affective experiences greatly contribute to the creation of an image of oneself. In addition, the emergence of emotions in the context of peer relationships and the discussion of these emotions can significantly contribute to the development of social capacity (Abe & Izard, 1999a). It is at this stage, with the beginning of the second cycle of basic education, that children begin to feel self-assessed emotions or social emotions, even in the absence of an audience. However, their assessment of the stimuli may vary according to age, being example of that the difference between the triggering of the guilt experience between a child under 8 and a child over 8 (Izard, Fine, Mostow, Trentacosta & Campbell, 2002), since while children under 8 are able to feel guilty, older children assess the notion of controllability or uncontrollability of events and therefore may not feel guilty in the same circumstances as younger children (Saarni , 1999).

The end of the second cycle coincides with pre-adolescence, during which there is an increase in the influence of peers and friends on the way of being and understanding the experiences (Breinbauer & Maddaleno, 2005), but also in which the family still exerts a predominant influence. Specific development characteristics may also influence the pre--adolescent in his or her way of dealing with emotions. The cognitive development in pre--adolescence allows to think abstractly and to formulate hypotheses due to the entry into the formal operations stage (Piaget, 1972), a fundamental requirement for performing cognitive re-assessments, which also involves efficient self-control, since the pre-adolescent will replace an immediate response, for example, distracting himself, for another that results from a reflexive process.

It seems clear that children show, early on, empathy or understanding for the feelings of another person, but they become more revealing of empathy and prone to prosocial behaviour with the cognitive advances of the school period, being that behaviour has emotional roots and is a signal of positive adaptation (Eisenberg, Fabes, Karbon et. al, 1996). Thus, children and young people competent in socio-emotional terms do not have problem--free lives, but they are equipped with individual and environmental assets that help them to cope with a variety of life events.

In short, emotional development begins from the moment the child is born with manifestations of dissatisfaction through acute crying, agitated arms and legs and tense body only quieting with the human voice or when they are cuddled in mother´s lap. As development occurs, the meaning of emotional signals will change, and children should be encouraged by the adults around them - parents or caregivers, educators and teachers - to constructively express their emotions, constituting themselves as facilitators in the promotion of their SEC.

Socio-emotional Competences

The construct of emotional competence has been proposed as a set of behavioural, cognitive and regulatory abilities that arise over time as a person develops in a social context (Saarni, 1999). Individual factors, such as cognitive development and temperament, influence the development of emotional competences; however, emotional competence abilities are also influenced by past social experience and learning, including the individual's relationship history, as well as the system of beliefs and values in which the person lives (Saarni, 2011). In fact, emotional competence involves a set of abilities underlying emotions, namely their expression, socially appropriate regulation and emotional knowledge, involving the balance between expressiveness, interpretation and emotional regulation (Denham, 2007; Halberstadt, Denham & Dunsmore, 2001). It is considered as central to the ability of the child to interact, establish positive relationships and self-regulate, by managing the affection in the initiation, maintenance and positive involvement with peers (Denham, 1998, 2007; Denham, Blair, Schmidt, & DeMulder, 2002; Denham & Burton, 2003). Its effects have also an impact in the consolidation of self-efficacy and self-esteem feelings, as well as in the demonstration of resilience in the face of stressful circumstances (Saarni, 1999). It is a core competence throughout life, both in mental health and academic and social success (Denham, 1998, 2007).

In turn, the concept of social competence emerged in the 1980s from studies based on the assumption that children learned social competences or manifested difficulties in contexts of early socialization with the family (McFall, 1982, cited by Canha & Neves, 2008). More recently, some authors consider that social competence refers to two broad sets of competences and processes: (1) those relating to interpersonal behaviour, such as empathy and assertiveness, anxiety and anger management, and conversational competences; and (2) those related to the development and maintenance of intimate relationships, involving communication, conflict resolution and intimacy skills (Canha & Neves, 2008; Ortiz & Rendón, 2010).

This way, although the emotional competence is considered from a perspective of personal experience, the fact is that it is lived in interaction with others, being interconnected with the social competence, hence the importance of talking about socio-emotional competences. Accordingly, emotions are inherently social in at least three aspects (Denham, 1998; Parke, 1994; Saarni, 1999): (1) in terms of the interpersonal nature of the emotions, the individual behaviour of others in the group conditions the emotion that the child will have; 2) the information about the emotions of others can shape the behaviour that the child can express, that is, when a child shows an emotion, either in a group or in a dual situation, expressiveness is an important information that he or she conveys, not only to himself or

herself, but to the other members of the group; and (3) the expression of one emotion can serve as a condition for the experience and expression of others' emotions.

Saarni (1999, 2011) states that we actively create our emotional experience through the combined influence of cognitive developmental structures and our social exposure to emotional discourse. Through this process, we learn what it means to feel something and act on it. This author speaks in eight abilities of emotional competence, which as a whole emphasize the implicit effective function on the idea of emotional competence: (1) The first ability refers to the awareness of a person's emotional state, including the possibility that the person is experiencing multiple emotions and, at even more mature levels, the perception that she may also not be aware of her feelings due to unconscious dynamics or lack of selective attention; (2) the second concerns abilities in discerning and understanding others' emotions, based on situational and expressive clues that have some degree of consensus about their emotional meaning; (3) the third is the ability to use the vocabulary of emotion and expression in terms commonly available in the subculture and at more mature levels to acquire cultural scripts that link emotion to social roles; (4) the fourth refers to the capacity for empathic and sympathetic involvement in others' emotional experiences; (5) the fifth relates to the ability to perceive that the internal emotional state does not need to correspond to external expression, either in oneself or in others; (6) the sixth is adaptive coping ability with aversive or distressing emotions, using self-regulation strategies that improve the intensity or time duration of such emotional states; 7) the seventh refers to the awareness that the structure of relationships nature is partly defined by the degree of emotional immediacy or genuineness of expressive display and degree of reciprocity or symmetry within the relationship; and (8) the latter relates to the capacity for emotional self-efficacy, which means that the individual accepts the emotional experience, whether it is unique, eccentric or culturally conventional, and this acceptance is aligned with the individual's beliefs about what constitutes the desirable emotional balance.

Other authors identify five basic dimensions of SEC: cooperation, assertiveness, responsibility, empathy and self-control (Salovey and Sluyter, 1997). On the other hand, Bisquerra (2003) considers that SEC include the following components: (1) emotional awareness, this is, the ability to become aware of their own emotions and others', and the ability to understand the emotional environment of a particular context; (2) emotional regulation, that is, the ability to deal adequately with emotions, which involves becoming aware of the relationship between emotion, cognition and behaviour, having good coping strategies and the ability to generate positive emotions; (3) personal autonomy or self-management, which includes a set of characteristics related to personal self-management, including self-esteem, positive attitude towards life, responsibility, ability to critically analyse social norms, the ability to seek help and resources, as well as emotional self-efficacy; and (4) interpersonal intelligence, that is, the ability to maintain good relationships with others. This perspective implies

mastering social abilities, effective communication abilities, respect, prosocial attitudes and assertiveness, life abilities and wellbeing, that is, the capacity to adopt appropriate and responsible behaviour for solving personal, family, professional and social problems.

The CASEL model (2008) considers SEC at two levels: intrapersonal and interpersonal, being that the first involves the understanding and regulation of one's own emotions and the second involves understanding others' emotions, relating to others, as well as making responsible decisions.

In brief, it is important to reinforce that the concept of SEC implies the acquisition of capacities underlying the expression of emotions, socially adequate regulation and emotional knowledge, being implicitly related to the identity, personal history and the child's sociomoral development. SEC refers to a set of core competences in the ability of children and young people to interact, self-regulate and establish rewarding relationships with others, in managing affection at the beginning and in the continuity of evolutionary involvement with peers.

Intellectual Disability

The World Health Organization (WHO) in its World Report on Disability reports that more than one billion people around the world live with some form of disability, and in the coming years this will be an even greater concern, because its incidence has been increasing. Disability is complex and interventions to overcome the disadvantages associated with disability are multiple and systemic - varying according to the context (WHO, 2011).

The International Classification for Impairments, Disabilities and Handicaps was, since 1980, the most important classification system in the process of understanding and defining disability. However, this classification was revised in the late 1990s, giving rise to the International Classification of Functioning, Disability and Health (ICF), in May 2001. With the adoption of ICF, it goes from a classification of "consequences of diseases" to a classification of "health components" and its role in the consolidation and operationalization of a new notional framework of functionality, human incapacity and health is decisive (ICF, 2004).

In this way, ICF considers that, in general, "disabilities are problems in body functions or structures, such as a major deviation or a loss" (ICF, 2004, p.13), adding that "structure disabilities may consist of an abnormality, defect, loss or other significant deviation from a pattern of body structures, (…) disabilities correspond to a deviation from what is generally accepted as the normal (standard) biomedical state of the body and its functions, (…) they may be temporary or permanent, progressive, regressive or stable, intermittent or

continuous, (…) they have no causal relationship with the origin or the way they developed, (…) they may be part or an expression of a health condition, (…) they cover a wider field than the disorders or diseases, (…) and may trigger other disabilities" (ICF, 2004, p.15).

Regarding Intellectual Disability (ID) in particular, according to the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-V), it is a disorder with onset in the developmental period that includes functional deficits, both intellectual and adaptive, in the conceptual, social and practical domains, and their essential characteristics include impairments in intellectual functions involving reasoning, problem solving, planning, abstract thinking, judgment, learning through school education, and practical experience and understanding. The American Psychological Association (APA) reports that another characteristic is a deficit in adaptive functioning, which involves three domains: conceptual, social and practical. Conceptual domain involves memory, mathematical reasoning, reading and writing, language, problem solving; the social domain involves empathy, communication abilities, social judgment, perception of thoughts, feelings, and experiences of others. The practical domain involves learning and self-management, personal care, money control, task organization, among others (APA, 2014).

The classification and definition performed by Luckasson et al., (1992) and adopted by the American Association on Intellectual and Developmental Disabilities (AAIDD) in 1992, present the change of the reference framework, that is, from a classification based on only one characteristic expressed by the individual, for a new conception that considers fundamental the relations that the individual with ID establishes with the environment in which he is involved, going from a singular perspective to a plural perspective. Thus, according to Lima--Rodrigues (2007), which presents the model proposed by Luckasson et al., (1992) and adopted by AAIDDR, ID refers to substantial limitations in the current functioning of the subject and it is characterized by significantly below-average intellectual functioning associated with limitations relating to two or more of the following areas of adaptive behaviour: communication, autonomy, housework, socialization, autonomy in the community, responsibility, health and safety, academic abilities, leisure and work.

Currently, AAIDD (2018) maintains the definition of ID as a disability characterized by significant limitations in both intellectual functioning and adaptive behaviour, which encompasses many everyday social abilities and practices.

For Paasche, Gorril and Strom (2010) the term ID is used to describe a child whose level of intellectual functioning and adaptive abilities are significantly below average compared to children of the same chronological age. However, the areas of development affected may not only be academic, physical, and functional, but also those related to communication abilities, social interaction, and socio-emotional balance.

It is important to note that, in order to calculate the degree of ID, the psychometric evaluation is used to get the value of Intelligence Quotient (IQ), with commonly used mental age scales: WISC-R (Wechsler Intelligence Scale for Children - Revised), SBIS (Stanford-Binet Intelligence Scale) and mental age/chronological age x 100 (Morato, 1995), considering mild ID (IQ between 50 and 70); moderate (IQ between 35 and 40 and 50 and 55); severe (IQ between 20 and 25 and 35 and 40); and profound (IQ below 20 to 25).

Expressions of ID are primarily a developmental delay in intellectual function and deficits in social adaptive functioning. According to the severity of the delay in intellectual functioning, deficits in the social adaptive function and considering IQ values, psychiatric classifications describe the four levels of severity mentioned above: mild, moderate, severe, and profound. However, it is the adaptive functioning that determines the level of support that each individual needs to perform various activities (APA, 2014). Given these points, and according to their intensity, the supports can be classified in: (1) intermittent (episodic, made available only in necessary moments, based on specific requirements and particularly applied in moments of crisis or periods of transition in the person's life cycle); (2) limited (characterized by limited and persistent temporality. They are intended to support short training periods or actions aimed at meeting needs requiring temporary short-term care); (3) extensive (characterized by their regularity and periodicity and recommended for some environments, without temporality limitations); (4) pervasive (constant, stable and of high intensity, available in different environments, potentially throughout life); and (5) generalized, (involving a team with many people) (Santos & Morato, 2002).

Considering that the participants of the study presented in Chapter 3 were diagnosed with mild ID, it is important to characterize this type, which refers to 80% of all cases of ID, and in which the IQ is usually between 50 and 69. In general, it is characterized by: emotional and social maladaptation; reduced vocabulary; simple and limited interest; slow reaction; reduced attention; inability to generalize and abstract; limited initiative; lack of originality; self-critical failure; insufficiency of study habits; difficulty in language, requiring simple, detailed and concrete subjects; delay and precariousness of cognitive acquisitions; discrepancy between the contents of their normal relational knowledge and the activities of a destructuring process which, assuming both mismatches, articulates and combines them atypically; construction of a disorganized and inadequate cognitive function, according to a constructivist perspective (Barbosa, 2007).

Ke & Liu (2015) state that in individuals with mild ID the development during early life is slower than in so-called "normal" children and developmental milestones are delayed. However, they are able to communicate and learn basic abilities, but their ability to use abstract concepts, analyse and synthesize is weakened, being able to acquire reading and

computer abilities, do housework, take care of themselves and do unqualified or semi-skilled work, and they usually require some support.

Alonso & Bermejo (2001), Feldman & Paasche (2001) and Gorril & Strom (2010) consider that a mild or moderate ID can not be diagnosed until the children begin their schooling, considering that human development is not always homogeneous, regardless of their situation. Like other people, the person with ID may have strong areas without needing support and require significant support in other areas, depending on the requirements of the environment.

Many individuals with ID, particularly those of mild or moderate, are able to live independently and contribute to their community, besides being able to achieve some self--sufficiency and to live a happy and rewarding life (Ke & Liu, 2015). Notwithstanding, research points to a greater incidence of emotional disturbances, being identified hyperactivity and phobias in children, bipolar depression in adolescents and young adults and psychotic symptomatology in adults (Marinho, 2000). People with ID are more likely to develop depressive disorders because of their relational verbalization problems, their limitations in social abilities, and their meagre social support networks. Moreover, these individuals are more often diagnosed with behavioural disorders, such as self-harm, aggression against others, autistic behaviour and the presence of stereotyped behaviours (Dykens, 2000). This author adds that children and adolescents with ID have a high risk of psychopathology with a wide spectrum of problems such as mood swings and psychoses, disruptive behaviour disorders (hyperactivity), poorly adaptive traits (high anxiety or impulsivity) and self-harm.

In short, with an early environment that provides support, stimulation, guidance and continued help, children with ID can present a good evolution. It is important that parents, educators and teachers meet their needs and promote the development of their SEC, not only through specific programmes, but also through everyday situations that stimulate different emotions. In this sense, SEL programmes take also into account not only the emotional characteristics, but the characteristics of the cognitive functioning of the subjects with ID.

Socio-emotional Competences in Intellectual Disability

Emotion is the biological form under which affectivity is aimed since we are born, when, still in an undifferentiated way and in a kind of mimicry, the emotion emerges underlying the child's consciousness in the gestures, looks and laughter exchange, as well as in feelings that express the acceptance or refusal of the other (Guhur, 2007). In this way, the emotions are primary sources of knowledge, playing a preponderant role in the adaptation of the individual

to the environment (Wallon, 1995) and are also the initiators of the learning process (Damásio, 2001). Intellectual ability is thus considered an important aspect of emotion understanding being the emotional experience triggered, in part, by a cognitive assessment of a situation in relation to an objective (Joseph & Ittyerah, 2015). Hence, with a deficit in intellectual ability, it also manifests itself in social and emotional competences. Nevertheless, however great the cognitive limitations of the individual, he is able to interact with the world through his basic emotions, which appear to be a competent channel of cognitive abilities justifying Damásio's (2001) belief that Down Syndrome children understand more than they can express because they feel emotions spontaneously and can transform them into knowledge, not always orally expressed.

ID can be one of the factors that affect the individual's emotional knowledge, because it is organized based on the image, verbal or abstract codes and requires the involvement of cognitive systems such as perception, expression and understanding that are misrepresented in these individuals (Jasielska & Buchnat, 2017). Therefore, emotional education emerges as a new educational paradigm, where not only reason and cognitive abilities are considered, but also emotions and affectivity. Effectively, socio-emotional education is considered very important in the inclusion of people with ID, so that they are seen in a new perspective, where the focus is not on their limitations but on their potentialities (Rabelo, Marinho, Melo & Dantas, 2016).

Most of the studies related to the emotions in people with ID aim the recognition of emotions showing that these individuals can identify their own emotions (Lindsay et al., 2004) and recognize the emotional expressions in others (Moore, 2001), improving this competence with training. This author and some studies on this subject allow to conclude that: (1) the ability to discriminate pleasant emotions from unpleasant emotions is equally important for individuals with and without ID, whereas individuals with ID have more difficulty in labelling specific emotions (Owen, Browning & Jones, 2001); (2) individuals with ID are able to label some emotions more easily than others, with happiness being the emotion most easily identified (Moore, 2001; Owen, Browning & Jones, 2001; Wishart, Cebula, Willis, & Pitcairn, 2007). Some authors suggest that the emotions recognition and understanding in individuals with ID can be aided by contextual stimuli and by a dynamic content in the stimuli. Although these individuals understand happiness and sadness better than anger or fear, understanding is more evident in emphatic expressions than in subtle ones (Joseph & Ittyerah, 2015), in the same way that the identification of a neutral face that does not portray an emotion is more difficult than the identification of a positive or negative emotional expression in the subjects with ID comparatively with the subjects without ID (Moore, 2001).

Regarding the experience of emotions, Bermejo (2006) considers that individuals with ID live their emotions according to the dimensions of pleasure or tension, in the same way as individuals without ID, whether children, young people or adults. This author adds that

individuals with ID experience their emotions according to the same dimensional parameters as individuals without ID, being the pleasant stimuli little activators, while the unpleasant stimuli generate activation.

Guhur (2007) states that in individuals with ID there is a predominant manifestation of affectivity through organic expression, in which the body itself reveals the emotions through gestures, postures, mime, silences, looks, smiles and tones of voice. If, on the one hand, this form of emotions externalization demonstrates the little mastery that some individuals have of the linguistic resources, on the other hand the expressive movements constitute a form of alternative communication. However, many individuals show difficulty in expressing emotions through this type of communication, since they present themselves with a rigid posture, confusing and inaccurate gestures, probably as a consequence of the absence of alternative symbolic resources. Additionally, there is evidence that individuals with ID use a limited repertoire of coping strategies when emotionally stimulated (Benson & Fuchs, 1999), but they can improve this aspect with intervention programmes. These programmes also contribute to the development of the self-regulation process, which in individuals with ID is much slower than in individuals without ID, being identified some specific deficits in said process such as difficulty in planning, monitoring and flexibility of problem solving, self-regulated attention, difficulties in ordering, weak persistence, high request for help during a task, and low self--motivation (Glenn e Cunningham, 2002; Vieillevoye & NaderGrosbois, 2008).

Understand the self-regulation process in subjects with ID is especially relevant for several reasons: (1) anger usually precedes the aggression and this is related to difficulties in self--regulation (Novaco, 2007), in addition to high rates of episodes of anger and aggression in this population (Smith, Branford, Collacott, Cooper & McGrother, 1996); (2) the emotional regulation can be a core element of other types of challenging behaviours, and these behaviours also present a high rate in this population (Lundqvist, 2013); (3) subjects with ID experience stress levels similar to those without ID, but stress resulting from negative interpersonal relationships is greater in individuals with ID (Bramston, Fogarty & Cummins, 1999); and (4) the difficulty in managing the emotional experiences in individuals with ID may be exacerbated by some factors such as communication difficulties (Mayer & Salovey, 1999). All these reasons emphasize the multidimensional nature of emotional regulation, where the path to wellbeing may not only involve the ability to effectively and adaptively act while experiencing negative emotions, but also requires the ability to understand their emotional responses at the very moment they occur (Gratz & Roemer, 2004). Consequently, if there is a deficiency in the ability to experience emotions, to differentiate this experience from other emotions and to understand the functionality of the emotional response, then maladaptive efforts to avoid or control this experience may become more likely (Hayes, Wilson, Gifford, Follette & Strosahl, 1996). To control and reduce this trend, it is urgent to intervene with the appropriate programmes, built considering the characteristics of these individuals.

In brief, it should be noted that the ID framework is fundamentally marked by a compromised general intelligence, that is, cognitive impairment is the main diagnostic characteristic, corresponding, among others, to a narrow logical reasoning, a deficient problem solving, a weak abstract thinking, a low learning fluidity and a restricted memorization (Santos, 2012). Moreover, such framework is also marked by a restriction of, among others, capacity for responsibility, autonomy, compliance with social rules and emotional regulation (Sanchéz, 2008; Fletchter et al., 2009; Castro, Almeida & Ferreira, 2010). All things considered and taking into account their specificities, it is urgent to create programmes that promote their SEC, given their characteristics and limitations.

Promotion of Socio-emotional Competences in Intellectual Disability

Awareness of one's own emotions enables an effective and positive work in bonding with others. If one can not identify and understand the emotional world in an experiential way in oneself, he can hardly see and understand the emotional world of others (Casassus, 2009).

Socio-emotional Learning (SEL) is the process by which we learn to recognize and manage emotions, to care for others, to make good decisions, to behave ethically and responsibly, to develop positive relationships, and to avoid negative behaviours (Elias et al., 1997). This author believes that schools will be more successful in their educational mission when integrating efforts to promote children's academic, social and emotional learning since SEL plays an important role not only in influencing these non-academic outcomes but also plays a critical role in improving academic performance and lifelong learning for children (Elias et al., 1997; Zins, Bloodworth, Weissberg & Walberg, 2004).

Studies have shown that children with more developed SEC are more prone to more empathic and less aggressive behaviour (Denham, 1998), they are more able to comply with classroom rules, to inhibit negative reactions and manage their attention (Bierman, Greenberg, Blair & Domitrovich, 2008), they are more positively evaluated by teachers and colleagues (Denham, 2006), they are not violent, they have achievement motivation, they are more resilient, they respect others, they work well in a team, they develop a greater capacity for self-regulation, they are socially balanced, responsible and affable (Espejo, 2009). In contrast, children with less developed SEC, in addition to not developing the competences above described, also receive less positive feedback from teachers (Raver, 2002), they are less likely to develop "attachment to school", that is, to like and participate in school, and they are at greater risk of being expelled from school (Gilliam, 2006).

As a result, SEL programmes provide systematic instruction in the classroom that enhances children's ability to recognize and manage their emotions, appreciate the perspectives of others, set prosocial objectives and solve problems, and use a variety of interpersonal abilities to ethically and effectively deal with relevant tasks to development (Payton, Wardlaw, Graczyk, Bloodworth, Tompsett & Weissberg, 2000). These authors add that the main purpose of these programmes is to foster children's development, contributing to academic success, healthy growth and development, the ability to maintain positive relationships and the motivation to intervene positively in their communities. Recent research, including meta-analyses and reviews of evaluation studies, have shown that such programmes have had a significant impact on positive attitudes towards self, on interaction with others and on learning, and on better prosocial behaviour (Catalano, Berglund, Ryan, Lonczak & Hawkins, 2002; Sklad, Diekstra, De Ritter & Ben, 2012; Taylor, Oberle, Durlak e Weissberg, 2017).

The positive impact of SEL programmes has been reported among all school children regardless the race, socioeconomic context, or student location (Durlak, Weissberg, Dymnicki, Taylor, Taylor & Schellinger,2011; Taylor, Oberle, Durlak e Weissberg, 2017). As the advantages of SEL in children without ID are evident, they will also be in children with Special Educational Needs (SEN), which includes ID (Faria, Esgalhado & Pereira, 2017). However, SEL is based on a systemic perspective, that is, the promotion of SEC should take place not only in the classroom, but also at the level of the entire school, families and the entire school community, where emotions affectivity begin to incorporate the curriculum and the daily activities of the school, being essential to the absolute development of the student (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Through the processes of self-knowledge and SEC acquisition for a better coping of everyday situations, SEL enables the person with ID to the awareness and prominence of his own existence (Rabelo, Marinho, Melo & Dantas, 2015).

From the SEL perspective, both regular teachers and special education teachers should direct their attention to the development of competences, as well as the creation of an environment and a set of opportunities that allow these competences to be developed in a way that reflects the students' individual strengths (Elias, Wang, Weissberg, Zins, & Walberg, 2002).

SEL, being the missing piece in education, helps to fill a gap in theory and practice about improving outcomes in students with ID, in addition to address the convergence of individual abilities and the way in which the environment promotes the development of those abilities and supports their use (Elias, 2004). Studies carried out with children with ID suggest that SEL improves communicative skills, reduces interpersonal problems, and improves the quality of social and interpersonal relationships (Sheydaei, Adibsereshki & Movallali, 2015).

Despite being shown the importance of SEL programmes, there are few which are directed to this population. We highlight the programmes "Promoting Alternative Thinking Strategies" (PATHS) (Greenberg & Kuché, 1993), "Emotional Education Programme" from the *Grupo de Recerca en Orientació Psicopedagogica* (GROP) (Bisquerra, 2003) or "Zippy's friends" (Mishara & Ystgaard, 2006) which, although they had not been created for children ID, they were further tested in this population and the findings were very positive. From the analysis of the mentioned programmes, a solid basis is obtained for the construction of a new programme directed to meet the needs and characteristics of this population, using language, illustrations and motivational activities, simultaneously simple, clear and objective (Faria, Esgalhado & Pereira, 2016). This program, "Smile, Cry, Scream and Blush", was implemented with a sample of 50 subjects with ID and the results point to a significant improvement in the SEC of the experimental group subjects, being described in chapter 2 of this thesis.

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Chapter 1

Measurements to Assess and Programmes to Promote Socio-emotional Competences in Children with Intellectual Disability

Abstract

Socio-emotional Competences (SEC) in children with Intellectual Disability (ID) are essential to their personal, social and academic success. It's important to find out measurements that have been effective in assessing SEC in children with ID, as well as programmes that have proved successful with this population. This theoretical perspective on the state of the art of measurements to assess and promote SEC led us to a wide range of instruments, although only a few have been used with children with ID. The Test of Emotion Comprehension (Pons, Harris & Doudin, 2002) seems to be the most suitable to use with these children, presenting several advantages including a Portuguese version, its use with the population with ID, its user-friendliness and appealing material. Regarding intervention programmes, there is evidence of the use of some with this population, showing relevant outcomes. Nevertheless, all these programmes provide us a solid basis for allowing a construction and validation of a new one in order to overcome some gaps in the promotion of SEC in children with ID.

Keywords: Socioemotional Competence (SEC); Intellectual Disability (ID); Assessment measurements; Intervention Programmes

1.1. Introduction

Socio-emotional education aims to answer a wide range of socio-emotional needs that are not sufficiently addressed in formal education (Bisquerra, 2003). It is therefore necessary to promote Socio-emotional Learning (SEL) which, according to Collaborative for Academic, Social and Emotional Learning (CASEL, 2003) consists of the development of essential SEC, being several the programmes of SEL available for students of different school levels. The same organization contends that these programmes should develop five key skills: self--awareness, self-management, social awareness, relational skills and making responsible decisions.

The different SEC components help in the social interactions success, supporting abilities such as listening, cooperating, asking for help, entering a small group or approaching a colleague and negotiating conflicts and interactions with peers. These abilities predict mental health and wellbeing throughout life (Denham, 2007). The evaluation of these acquired skills is essential to the selection of strategies to be implemented, besides being an important investigation point.

In this paper, we aim to analyze different SEC assessment measurements, as well as programmes to promote these competences, taking into account their characteristics and limitations, since they are intended to be used with children with ID.

1.2. Measurements to Assess Socio-emotional Competence

A core question on the assessment of the effectiveness of SEC promotion strategies in children is the existence of instruments that assess the various components of emotional functioning in schoolchildren and adolescents. Therefore, it is important to analyse the most common methods of assessment, as the evaluation of acquired skills is crucial for the differential selection of strategies to implement with different populations, especially those involved in Special Education Needs (Moreira, Oliveira, Crusellas & Lima, 2012).

Assessment is a key point of any investigation and its purpose is to recognize problems that may exist, being able to be performed using several means: observation of verbal and nonverbal behaviour, interviews, with the purpose of collecting qualitative data; scales or questionnaires, to collect quantitative data (Martins, 2012). Thus, in order to construct an effective intervention, it is important to find out if the existing assessment instruments are efficient and appropriate to different age groups and subjects with specific characteristics, such as ID (Acquadro, Jambon, Ellis & Marquis, 1996).

One of these instruments is the Affect Knowledge Test (AKT) (Denham, 1986), designed to focus on the interpersonal relationships issues, focusing more on nonverbal communication of emotions such as facial, gestural and body, and less in verbal abilities, except for the naming emotions task. The test analyses the following components of the knowledge of emotions: (1) ability to name basic emotions (happiness, sadness, anger and fear) based on facial expressions; (2) ability to recognize facial expressions of the same basic emotions based on their verbal labels; (3) ability to understand the causes of emotions in typical situations of emotional context and (4) ability of affective decentralization in emotionally ambiguous situations.

The tasks included in the AKT are distributed in the following dimensions: (1) verbal recognition and nonverbal identification of emotional expression and (2) knowledge of emotions triggered in typical and atypical situations (Machado et al., 2008). It is therefore, a test that assesses the child's emotional knowledge as well as the recognition of the expression of emotion and the understanding of situations that cause emotions, using puppets with removable heads representative of happiness, sadness, anger and fear (Denham et al., 2012). It is designed to investigate socio-emotional development in pre-school children, and it has been used as a development measure of the knowledge of emotions, being considered one of the SEC components that are associated with other variables of socio-emotional development (Machado, Veríssimo & Denham, 2012).

According to Denham (2006) AKT has proven to be ecologically valid since it requires little verbalization and is playfully performed. It's easy to use and children have fun during the 20 minutes of its duration. The literature review suggests that AKT has not been implemented with children with ID yet, but there is evidence of its usage with visually impaired children (Oliveira, 2015). The Portuguese research context reveals that for the overall skills of emotion knowledge, tasks relating to happiness are the easiest followed by those relating to sadness, anger and fear (Machado et al., 2012). The figures also point out that the task of naming emotions is the less acquired ability, followed by recognition, affective decentralization and the identification of the causes of emotions. The several studies conducted by Denham (2011, 2012) confirm an important link between emotional knowledge, self-regulation and academic success.

In 1997, Mayer and Salovey, who created the concept of Emotional Intelligence (EI) in 1990, constructed the first instrument to measure the individual performance in tasks of emotional situations through the Multifactor Emotional Intelligence Scale – MEIS. This instrument consists of twelve tests grouped into four skills: identification, use, understanding and management of emotions (Faria, 2011). Later, Mayer, Salovey & Caruso (2002) revisited the previous model emphasizing that each of the 4 skills can be singly separated, measured, learned and developed. The authors made some changes to the initial model and proposed the MSCEIT (*Mayer Salovey Caruso Emotional Intelligence Test*) (Mayer, Salovey & Caruso,

2002), which is an EI test built as a performance measurement. It assesses the individual's ability to solve problems involving emotions. The instrument includes eight sections grouped in pairs, distributed over four dimensions: facilitate thought and perceive, understand and manage emotions (Mayer et al., 2003), so it aims to assess the individual's ability to perceive, understand and use emotions in order to ease thinking, as well as manage emotions to facilitate cognitive processes and promote personal and intellectual growth (Gonzaga & Monteiro, 2011). The studies already performed include the full test or, as proposed by Noronha, Primi, Freitas & Dantas (2007), a partial use of the scales using only half of the score, more specifically the understanding and management skills of emotions. Psychometric studies reveal that, in general, the subtests showed acceptable internal consistency levels. Brackett & Salovey (2006) suggest that EI can be measured, predicting important psychological and behavioral outcomes, such as depression, peers' relationships and satisfaction in relationships.

The Test of Emotion Comprehension (TEC-1) (Pons, Harris & Doudin, 2002) aims to assess nine components of emotional development: (1) recognition of emotions based on facial expressions; (2) external cases of emotions; (3) assignment of a desire as a cause of emotion; (4) the role of beliefs in the determination of emotions; (5) influence of memory in circumstances of emotional states assessment; (6) ability to regulate emotions; (7) ability to hide or conceal emotions; (8) mixture of emotions regarding a particular situation and (9) the role of morality in emotion (Rocha, 2016). There is a version for girls and a version for boys. The test consists of a book with illustrations (in digital format) with a story read for each situation, being that on every page there are four possible endings represented by facial expressions. The authors designate them as happy, sad, angry, scared and OK and children are asked to assign an emotion to the presented situation (Pons et al., 2002). The advantages of this instrument are many, being a test that is not restricted to a few aspects of SEC but provides an opportunity to assess the nine aforementioned components. Being easily applicable and computerized, it is appealing for children (Santos, 2012). Another advantage is the existence of a Portuguese version and its validation for children with ID (Pons, 2016). Studies with TEC suggest that the most complex components of emotions understanding (conceal or hide, mixed emotions and morality) related to the reflexive features are those which most distinguish the performance, being also the ones that vary according to age, SEC and academic performance (Pons, Harris & Rosnay, 2004; Tenenbaum, Visscher, Pons & Harris, 2008; Rocha, 2016).

Asking children to tell stories is an effective way to figure out how they deal with their emotions and there are some instruments using this methodology. One of them is the projective test *Era uma vez…* (Once upon a time…) by Fagulha (1994, 1997, 2002), a story completion test designed for children between five and eleven which aims to study the way children elaborate their emotions (Estrada, 2008). It is characterized as a thematic projective

test since the children have to develop a story from the presented stimuli and allows us to assess their ability to regulate emotions, namely their defense mechanisms (Fagulha, 2002). The test consists of eight cards with comics reporting common situations of a child's life. In every story there is a main character (boy or girl) to whom happens something. The eight cards present graphically the story in three pictures, being the thematic common daily event: separation and loss, disease and need to receive care, relationships with peers, nighttime terrors and nightmares, birthday, disagreement between parents and learning difficulties at school (Estrada, 2008). The purpose of the test is to see how children react to the emotions evoked by the events presented in the cards, existing situations that cause anxiety and others that cause pleasure. This test enables us to broaden our understanding of children's emotional life, particularly to perceive how they cope with disturbing and pleasurable events. Studies indicate that it may be used with children without and with ID and there is already some investigation with this population (Pereira & Faria, 2013, 2015) showing that children with ID live and identify emotions the same way children without ID do. However, the group with ID seems to have more difficulty in identifying fear and shame. Regarding the expression of emotions, the studies suggest that there are no relevant differences between the two groups although the group of children with ID relies more on fantasy and less on reality.

Another instrument is the Emotion Matching Task (EMT) (Izard, 2003) which aims to measure emotional knowledge, in particular the receptive (recognition of facial expressions of emotions) and expressive (labeling of these emotions) besides the knowledge concerning situations that cause emotions (Andrade, Abreu, Duran, Veloso & Moreira, 2013). It was designed for preschool children and features pictures of children of different ethnicities showing facial expressions alluding to emotions like happiness, sadness, anger, fear, surprise and also a neutral facial expression (Morgan, Izard & King, 2009). It is divided into four parts which assess different aspects of the emotional knowledge: (1) matching emotions expression; (2) labeling receptive emotion; (3) labeling emotional expression and (4) knowledge of emotional situation (Seidenfeld, 2011; Alonso-Alberca, Vergara, Fernandez-Berrocal, Johnson & Izard., 2012).

EMT was the basis for the Emotion Knowledge Test used for a study in the University of Canterbury, New Zealand, with children with ID and entitled "Intervention for emotion knowledge and behaviour problems in children with developmental disabilities" (Randall, 2012). This and other studies evidence the effectiveness of the test in the assessment of SEC in children (Morgan, 2009; Alonso-Alberca et al., 2012). These works highlight that emotional knowledge is related with adaptiveness and externalization of problems. Moreover, these studies strengthen the idea that older children with greater verbal skills have a better emotional knowledge. Another aspect this test appears to highlight is the difference between genders. Generally, in the findings of studies researching this instrument, girls have a more developed emotional knowledge with regard to the correspondence of emotions and the

knowledge of expressive emotions, when compared with boys (Bennett, Bendersky & Lewis, 2005).

Assessment of Children Education Skills (ACES) is an instrument developed by Schultz, Izard & Bear (2004) and aims to assess children's emotional knowledge. It comprises three scales: Facial Expressions, Emotions Situations and Emotions Behaviors which contribute to the definition of the total score of the Correct Emotional Perception. The scales intend, respectively, to analyze children's ability to perceive facial expressions observed in others, the situations that trigger emotions and behaviors associated with emotions. Pictures of children of school age and different races, expressing different emotional expressions are used (Alves, 2006, Boznac & Knoleksiz, 2014). It is a suitable instrument for children attending the 1st and 2nd cycles (1st cycle starts immediately after pre-school at the age of 6 and lasts 4 years; 2nd cycle starts at the age of 10 and lasts 2 years), and there is no evidence of its use with children with ID. Several studies with ACES suggest that gender is not connected with the understanding of emotions during childhood. Furthermore, the same surveys demonstrate the role of verbal competence in understanding emotions, meaning that children with better verbal skills have a greatly enlarged domain on vocabulary allusive to emotions which enhances the SEC acquisition (Parker, Mathis & Kupersmidt, 2013; Boznac & Komleksiz, 2014; Verron, 2014).

The Bar-On Emotional Quotient Inventory (Bar-On, 1997, 2006) appears as one of the first measurements for EI that Bar-On defined as a set of personal, social and emotional skills that influence the person's competence to cope with the demands and environmental pressures. To assess that concept this self-report instrument of socio-emotional behavior, providing an assessment on EI was developed. It is an inventory of five scales with fifteen subscales: (1) intrapersonal (includes self-esteem, emotional awareness, assertiveness, independence and self-realization); (2) interpersonal (includes empathy, social responsibility and interpersonal relationships); (3) stress management (includes stress tolerance and impulse control); (4) adaptability (includes reality testing, flexibility and problem-solving) and (5) mood (includes optimism and happiness) (Bar-On, 2006).

The investigation suggests that EI is connected with academic success (Khajehpour 2011; Qualter, Gardner, Pope, Hutchinson & Whiteley, 2011), corresponding with a higher level of EI to a better performance in school. It should also be noted that subjects with a high level of EI tend to suffer less psychological disorders.

Inspired by the projective test *Era uma vez…* (Fagulha, 1997, 2002) the Emotion Icons was created by Carreteiro (2015), which is a semi-projective test that aims for the assessment and psychological intervention in the context of human emotions. It includes four sections (children, youth, adults and seniors) with each one having two versions (male and female). All versions show the same set of twelve facial expressions, differing only in gender and age.

Each section always begins by displaying a picture of the main character and the subject is asked to answer the questions on the character: *What's his/her name? How old is he/she? How is he/she feeling now*? This is followed with a picture of the supposed character's family with full body images and an expressionless face (Carreteiro, 2015). The subject then must answer the questions: *Which is the most happy/sad family member? Which of them does the character like most? Which of them would the character like to be?* After answering the questions, the subject assigns an emotion icon to each family member. The results of the test must be interpreted according to the psychodynamic model and for each case we must relate the thematic of the picture with the emotion chosen by the subject, trying to figure out the emotions already generated and their meaning to the experience and psychological functioning of each child (Carreteiro, 2015). To date, there are no studies published with this instrument yet.

Another kind of material concerns children's stories. Since childhood stories have evoked in us fantasies, dreams and emotions, being an instrument that facilitates emotional and affective growth. Bettelheim (1976) emphasizes that the fanciful nature of stories is important because it makes it obvious that its goal is not to give useful information on the external world but on the inner psychological processes that take place in an individual. Thus, children go through several stages that lead them to the acquisition of knowledge, values and affections decisive in their personality consolidation. The contribution of children's literature to children's emotional and affective growth is indisputable (Branco, 2001).

Looked at in this way, children's books, validated by experts in children's literature and psychology, may serve as effective instruments to assess SEC in children with and without ID. Two of these books, "Sebastião" (Conti, 2002) and "About friends" (Santos, 2013) take into account the cognitive and emotional components that involve and encourage the infant universe. The books are presented and read to children who are then questioned, individually and in semi-structured interviews, with the purpose of perceiving the emotions identified (Faria, 2011). Their answers revealed that children with ID reveal difficulty in understanding oral statements, not perceiving that some questions concerned the generality of characters' emotional states, answering for specific situations. The use of past and future tenses are particularly difficult for these children (Thirion-Marissiaux & Nader-Grosbois, 2008). However, this instrument can be used with children with ID since the interviewer is free to adapt and clarify his/her speech so all children can understand.

In short, from the literature review we highlight these instruments to assess SEC, considered the most adequate to use with children with ID.

1.3. Programmes to Promote Socio-emotional Competences

SEL is the process whereby children and adults get the ability to recognize and manage their emotions, make responsible decisions, establish positive relationships with others and become individually healthier and more productive (Zins, Bloodworth, Weissberg & Walberg, 2004). The academic success will be greater and therefore schools will also have more success in their educational mission when integrating efforts to promote not only academic, but also social and emotional learning (Elias et al., 1997). Although SEL plays an important role in non-academic outcomes, the truth is it is vital to improve academic performance and lifelong learning (Zins et al., 2004). A way to promote SEL in schools is based on the use of programmes to promote these competences. By means of safe, endearing and productive environments, the programmes lead to a closer relationship with school which is associated with a decreased risky behavior and an increased academic success (Elbertson, Brackett & Wissberg, 2010).

For a programme to be considered of high quality, it must be linked to a theoretical background and emphasize cognitive, affective and behavioral skills (Vale, 2012). Some authors grouped these three types of skills in five major categories, which represent the first step for SEL: (1) self and others awareness; (2) positive attitudes and values; (3) making responsible decisions; (4) communication skills and (5) social skills (Hawkins, 1997; Payton, Wardlaw, Graczyk, Bloodworth, Tompsett & Weissberg, 2000). It is believed that the most successful schools are those which have developed efforts to promote in children not only academic learning but also SEL. Likewise the Collaborative for Academic, Social and Emotional Learning (CASEL, 2003) argues that these programmes should be for all students since all of them benefit from the socio-emotional development, including children with ID. The length of the programme is another criterion mentioned by CASEL as the practice of some strategies and their repetition in order to verify a cognitive, behavioral and socio-emotional integration is important. Payton et al. (2000) state that programmes should include assessment methods to achieve goals, which is important for their empirical validation. Existing studies demonstrate that a well- structured programme leads students to successful academic, socio-emotional, behavioral and health outcomes (Zins et al., 2004).

The literature review suggests several such programmes one of which is Promoting Alternative Thinking Strategies (PATHS) (Greenberg & Kuché, 1993. It is a programme for 1st cycle children that emphasizes conflict resolution, thinking before acting, emotions management and expression in an effective way. It was designed to promote SEC in students and teachers as well as to reduce aggression and behavior problems while improving productivity in classroom. Vale (2012) adds that PATHS aims to promote emotional literacy, develop SEC, decrease and prevent emotional distress, be aware of behavioral and emotional problems and reduce the risk of social maladjustment. The results achieved with this programme point to

an improvement in the resolution of social and emotional problems, an increase in the emotions recognition and understanding (self and others) and a decrease in conduct problems by promoting self-control (Ocak & Arda, n.d., as cited in Amaral, 2014).

PATHS has already been tested in various contexts, proving to be effective with children with ID, its use having led to immediate and significant improvements regarding comfortable and uncomfortable feelings. It also shows an increase in the understanding of emotions as well as an improved ability to identify emotions in others in addition to a greater ability in problem-solving and self-control (Greenberg & Kusché, 1993).

Another programme that has proven to be effective is the GROP's Programme on Emotional Education (*Grupo de Recerca en Orientació Psicopedagogica*) created in 1998 under the supervision of Rafael Bisquerra. This programme is intended for children to control the emotion concepts, the types of emotion and affective phenomena, and also that children become aware of the main features of emotions (Bisquerra, 2003). This programme not only allows children to broaden their emotional vocabulary but also use coping strategies towards resolving emotionally difficult situations, reaching emotional self-control in order to properly manage emotions and conflictive impulses (Bisquerra et al., 2012). It is divided into five thematic blocks: (1) emotional awareness; (2) emotional regulation; (3) self-esteem; (4) SEL and (5) life skills. Each of these blocks contains six activities with guidelines, specific vocabulary and suggestions, as adaptations according to the child's age. The strategies include some short stories with puppets, being recommended to create a mascot and making use of daily routine experiences. The programme, already implemented in educational centres, has been found effective in reducing conflicts, increasing empathy, solidarity and cooperation, reading, writing and calculation improvement, greater involvement of the school community in the development of SEC in addition to a greater awareness of families to SEL (Cassá, 2003; Segovia, 2012; Bisquerra, 2012).

Crescer a Brincar (Growing Playing) (Pereira & Moreira, 2000) is a programme using comics which stresses the subjects' active role in knowledge construction, privileges the decision-making process, motivational factors and vicarious learning. It is used with children throughout the 1st cycle of basic education and has as its main purpose the promotion of psychological adjustment by strengthening protection factors and reducing risk factors (Crusellas, Cruz & Barbosa, 2013). Applied in the classroom context, it focuses on working discipline and self-control, self-esteem, differentiation and emotional management, social skills, ability in decision making and conflict resolutions, providing strategies that help to prevent indiscipline, delinquency and school failure. Divided into several sessions, *Crescer a Brincar* is explored in a playful manner and adapted to children's age, which enables its use with children with ID. This exploration helps children to deal with their inner world while various dimensions are promoted as motivation, self-esteem, decisions and consequences, perceived (in)vulnerability, emotional differentiation and management, assertiveness,

distinction between facts and beliefs and values clarification (Moreira, 2001, as cited in Gonçalves, 2013). Several studies show its effectiveness in terms of assertiveness, self-confidence and decision-making (Pereira & Moreira, 2000; Freitas, Prette & Prette, 2012; Crusellas et al., 2013).

Incredible Years (Webster-Stratton & Reid, 2004) refers to a series of programmes for parents, teachers and children having started off as a therapeutic programme of treatment and intervention for children aged 4-8 with opposition, defiance and behavior disorders. It includes a curriculum on social development, problem solving and behavior management to intervene with children that show an aggressive behavior through group work, which is called Dina Dinosaur Classroom Curriculum, aiming to improve SEC, reduce behavior problems and enhance academic competence (Webster-Stratton, 2008). Thus, the two assumptions that support this programme concern the intervention with children presenting behavioral problems and the prevention of these problems (Vale, 2012). The intervention is further enhanced with the use of a parental programme that aims to improve the positive parental interactions, family communication and partnership with school (Webster-Stratton & Reid, 2004). The goals of the programme for teachers relate to the SEC development and academic skills, problem solving strategies, behavior management, positive interactions with peers, decrease of negative behaviors, increase of empathy skills, decrease of aggressive and opposition behavior (Institute of Education Sciences, 2011).

Zippy's friends is a different programme. Its main purpose is to train children to cope with adversity and less positive events of daily life (Mishara & Ystgaard, 2006). The hypothesis underlying the programme development was that if children learn early on to expand their repertoire of coping strategies, they would be less likely to develop serious problems during childhood, adolescence and even adulthood, when faced with the unavoidable occurrence of problematic situations. Studies carried out by the authors indicate that children's coping strategies can be enhanced with this intervention since this integrates problem solving and SEC understanding (Wong, 2008). This is a programme that not only addresses children's problems and difficulties but also highlights their strengths, skills, positive emotions and an effective use of support and resources. It is built around six illustrated stories about a group of children, their families, friends and a pet insect, Zippy. The programme neither tells children what to do nor indicates to them what is correct or wrong but encourages them to explore and think for themselves and emphasizes the importance of talking with others, listening, giving and getting help (Mishara & Ystgaard, 2006). Zippy's friends was designed for children attending the beginning of the 1st cycle of basic education, but some studies have shown its success with pre-school children (aged 4-5) and with children attending the four years of the 1st cycle (aged 6-9), being considered effective with children with different education needs (Wong, 2008; Clarke, 2011).

Devagar se vai ao longe (Slowly but Steadily) (Raimundo, 2012) is a programme that meets the conceptual framework of SEL programmes. To be used in the classroom, it aims at the development of SEC, specifically socio-emotional effectiveness, understanding, management and expression of emotions (Faria, 2011). Its main goals are the improvement of self-awareness and self-control skills in order to achieve success in school and in life by the use of social and interpersonal awareness skills to establish and maintain positive relationships and by demonstrating the decision-making competence as well as responsible decisions and behavior in personal and social contexts (Raimundo, 2012). The strategies include reading stories based on real or imaginary facts, reflection on the same stories, brainstorming on how to deal with social and emotional problems, role-playing better attitudes and behaviors, pedagogical games, group-work, training of daily skills and reinforcement of positive behavior and attitudes. With this programme significant benefits on the intervention groups were already observed, mainly at the SEC level and psychological adjustment. However, in the control groups an improvement was noted in terms of emotional awareness although anxiety and relationships with peers worsened (Faria, 2011).

In a professional and preventive approach emerges the series of books *Vamos sentir com o Necas* (Let's feel with Necas) by Carvalho, Caldeira, Maia & Correia (n.d. as cited by Maia, n.d.), which is a project that works with the emotions in children as a way to encourage self--esteem, healthy living and facilitate academic success (Maia, n.d.). In each book the reader finds an attractive story in which the characters are a group of children with a special friend, the dolphin *Necas*. Each story is followed by some interactive strategies which correspond to a set of simplified tools to help children to deal with their emotions (Moniz, Amaral, Carvalho, Caleira & Sousa, 2015). The children of the stories have the same fears and apprehensions, suffer the same doubts and concerns, and have the same surprises and joy of real children. *Necas* identifies the emotions and teaches his friends, using simple and direct language, the role they play in our life and the appropriate way to use them in the promotion of our wellbeing (Maia, n.d.).

The programmes aim to: (1) promote children's knowledge of basic emotions; (2) promote the ability to identify basic emotions in themselves and in others; (3) enable adequate and positive ways of dealing with different emotional states; (4) promote self-motivation, empathy and assertiveness, considering their facilitating role in academic success and in life adjustment; (5) train the use of SEC as important resilience tools and in the prevention of risky behavior; (6) promote the recognition of emotions and (7) enable adequate strategies for emotional regulation (Moniz, 2015; Amaral et al., 2015).

1.4. Final considerations

To sum up, there is indeed a wide range of measures to assess SEC, although only a few have been used with children with ID. Among all, TEC (Pons, Harris & Doudin, 2002) seems to be the most suitable one to use with this population, as it provides an opportunity to assess several components of SEC. Additionally, there is a Portuguese version and it has already been used with children with ID, being simple to apply and appealing for children.

While programmes designed to improve SEL provide some evidence of their use with children with ID, those analysed in this paper may provide a solid basis to the construction of a new programme, specifically directed for this population. A new programme is required in order to meet the needs of children with ID, making use of simple and clear language, clear illustrations and simple activities, once those analysed in this paper seem to be complex and more difficult to use with this population.

Previous studies that aimed to give answers to questions related to the way that children with ID express, identify and regulate their emotions, have found that this population presents some difficulties in the understanding and organization of coping strategies (Pereira & Faria, 2015). Following the investigative sequence of the available programmes, the analysis formed the basis to the construction a new programme, which is already being formulated. This new programme will have an innovative methodology, with differentiating objectives beyond its social relevance in relation to existing programmes. This new programme will certainly address the gaps found in the current programmes analysed in this paper as it takes into consideration several limitations of children with ID.

This programme is part of a new study that is currently being conducted in order to validate its effectiveness in the promotion of SEC in children with ID. For that, it will use the TEC (Pons, Harris & Doudin, 2002) as the pretest and posttest, once it assesses the components of SEC that the programme will include.

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Chapter 2

Smile, Cry, Scream and Blush - Promote Socio-emotional Competences in Children With ID

Abstract

Socio-emotional Learning (SEL) provides individuals with strategies and skills that allow them to be able to identify their own emotions, to reflect on their causes and to understand how these emotions condition their behaviour, aiming at their regulation (Denham, 2006). If intervention with SEL is effective with children without any type of problem, how much more effective it will be with children with Intellectual Disability (ID) since they will be able to understand more than they can express and feel their emotions spontaneously, being able to modify them in knowledge, not always expressed orally (Damásio, 2001). That was the main reason for the creation of "Smile, Cry, Scream and Blush", a programme that aims to promote Socio-emotional Competences (SEC) in children with ID.

The programme is based on short stories simply illustrated, which stimulates the child's creativity and imagination while arousing his/her curiosity, exteriorizes emotions and helps to resolve conflicts. The diversity of contents, the way they are reported and the very language of tales are considered to be relevant in cognitive and emotional development as well as on the child's personality formation (Couto, 2003; Souza & Bernardino, 2011). The emotional content of the programme was validated by experts in emotional development and children's literature, as well as by students with and without ID.

With the purpose of verifying the appropriateness of its contents and objectives, this pilot study with 21 children with ID was conducted. The findings were evident and their involvement grew session after session.

2.1. Introduction

Emotions play a key role in the individuals' learning and development, preparing them to deal quickly and effectively with various situations besides functioning as alert mechanisms that continually evaluate the surrounding environment and identify when something important for the wellbeing or survival (Ekman, 2003).

Throughout his development, the individual is learning and expanding his ability to understand, both the causes and the functions of one's own emotions, as well as recognizing the several emotional experiences (Denham, 2006). This learning provides the individual with strategies and skills that allow him to show himself that he is able to identify his emotions, to reflect on their causes and to understand how these emotions condition his behaviour, aiming at their regulation. Therefore, and considering their importance, these skills should be considered and developed early on awakening children to the importance that the emotions and the ability to recognize and regulate them in a guided and positive way exert on their development process (Mayer & Salovey, 1999).

If intervention programmes are shown to be effective with children without any type of problem, more they will be with children with Intellectual Disability (ID) since they understand more than they can express and feel their emotions spontaneously, being able to modify them in knowledge, not always orally expressed (Damásio, 2001). That was the main reason for the creation of "Smile, Cry, Scream and Blush", a programme that aims to promote Socio-emotional Competences (SEC) in children with ID.

The emotions to be worked in the programme include happiness, sadness, fear, anger, shame and pride, being the first four basic emotions that do not raise many difficulties in their recognition and expression by children with ID. Shame and pride, being social emotions, integrate components of the primary emotions and are biologically determined, but also socially learned (Damásio, 2000). They are more difficult to identify, more complex and allow to assess more accurately the identification, expression and regulation of emotions by the children with ID.

2.2. Problem Statement

SEL involves the processes through which children acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions (CASEL, 2008). Programmes on SEC lead schools to be more successful in their educational mission which is particularly important for children with ID due to their characteristics and limitations.

2.2.1. Emotions and Socio-emotional Competences

"Emotion", as the term "cognition", refers to a set of subjective reactions to an event protruding from the internal and external environment of the organism, characterized by physiological, experiential and behavioural changes. Emotions directly contribute to the functioning of the perceptive, cognitive and personality systems, as well as for the development of SEC (Izard, 2001; Lewis, 2008).

Empirical studies have demonstrated the importance of SEC for academic performance (Denham, 2006). Children entering school with more positive profiles of SEC not only have more success in developing positive attitudes towards school as significantly improve their performance and achievement (Ladd, Birch & Buhs, 1999; Denham, 2006).

Saarni (2008) defines SEC as the demonstration of emotional self-efficacy in social relationships that evoke emotion. This definition demystifies the complexity of emotional competence and talks about personal efficacy applied to social relationships as being the ability to achieve a desired result. Our whole social relationship influences our emotions, and in turn, our emotions influence our relationships (Vale, 2009). Saarni (1999, 2008) also argues that because emotional competence is linked to concepts such as compassion, self-control, justice and a sense of reciprocity, we also can't separate emotional competence from the moral sense.

Although SEC is considered from a perspective of personal experience, the fact is that it is lived in interaction with others. Emotions are inherently social in at least three aspects: in terms of interpersonal nature of emotions, the individual behaviour of others in the group determines the emotion that the child will have; also when a child displays an emotion, either in group or in dual situation, the expressivity is an important information that he conveys, not only to himself, but to the other members of the group; finally, the expression of an emotion can serve as a condition for the experience and expression of others' emotions

as social interactions and relationships are guided and defined by the emotional transactions within the group (Campos & Barrett, 1984; Parke, 1994; Saarni, 1999; Denham, 2006).

In the late twentieth century, the concern about the child's emotional function increased significantly, especially in the skills used to think and regulate emotions. In this way, the concept of emotional competence grew alongside with various models of emotional intelligence. One of these was that of Mayer and Salovey (1999) and Mayer, Salovey and Caruso (2000) which proposes the processing of information elements (perception, evaluation and emotional expression) integrated with cognitive/affective elements (analysis and understanding of emotion with cognitive dexterity and vice versa) and with aspects of a skill or performance (the ability to regulate their own emotions and those of others).

The concept of SEC was derived from the thinking of authors such as Denham (2007). This concept implies the acquisition of skills underlying the expression of emotions, socially appropriate regulation and emotional knowledge, being implicitly related to the identity, personal history and with the socio-moral development of the child and teenager. It is considered a central competence in the ability of children and young people to interact, self-regulate and establish rewarding relationships with others, in the management of affection at the beginning and in the continuity of the evolutionary involvement with the pairs.

In a school context, these tasks and outcomes may include school success, meet personal and emotional needs and develop transferable skills and attitudes beyond school. Through thought and feeling socially competent people are able to select and control the behaviours to emit and to suppress in a particular context, to achieve the objectives set by themselves, or established by others.

Emotions are primary sources of knowledge, playing a preponderant role in adapting the individual to the environment, being the initiators of the learning process (Damásio, 2001). Thus, however great the cognitive limitations of the individual, he can interact with the world through his basic emotions.

Studies show that individuals with ID can confidently identify their own emotions and recognize the emotional expressions in others (Moore, 2001; McClure, Hapern, Wolper & Donahue 2009). However, Bremejo (2006) considers that this identification has many flaws and gaps when compared with children without ID, being evident a greater difficulty in identifying shame and anger (Sovner & Hurley, 1986; Pereira & Faria, 2015). These authors point out that individuals with ID demonstrate difficulties in organization and coping strategies. This difficulty in adaptively managing some situations leads to some anxiety, which can be attenuated with the implementation of an intervention programme.

2.2.2. Socio-emotional Learning

SEC can be properly developed through the process of SEL corresponding to the knowledge, attitudes and skills that each one must consolidate to make coherent choices with himself, have gratifying interpersonal relationships and a socially responsible and ethical behaviour (CASEL, 2013).

The programmes of personal and social competences have emerged in psychiatry, having subsequently been used by other areas of knowledge, with other populations. The simplicity of this type of strategy favoured its expansion for the training of professionals from other areas, namely teachers (Matos, 1998), giving place, later on, to the programmes of social and emotional competences.

SEL refers to a model whose type of activities allows the acquisition of skills that all people need to adapt to different situations and activities of daily life, to be successful in their life project, whether in the family, school, workplace or in relationship with others (Durlak, Weissberg, Dymnicki, Taylor & Schellinger, 2011). It is a process in which subjects have the possibility to recognize and regulate their emotions, make responsible decisions, establish positive relationships with others and become individually healthier and more productive (Zins, Bloodworth, Weissberg & Walberg, 2004).

Being evident the advantages of SEL in children without ID, likewise they will be in children with Special Education Needs (SEN), including ID.

In the inclusive school paradigm, the differences regarding the specificities of each individual and the need for adequate responses, providing equal opportunities, assume great relevance (Borges & Coelho, 2015). According to César (2003) for many children and teenagers attending school, as we currently conceive it, the sense that the school seems to have been made to the measure of others, based on a culture very distant from the one in which they are inserted, is a constant.

A school for all presupposes equal opportunities, a common starting point with the necessary adaptations along the way. The teaching and learning processes may undergo various obstacles that refer to students but also to teachers who have to manage the difficulties arising from the inclusion of students with marked differences in the same context (Sim-Sim, 2005).

The academic success depends on several factors, among them the teachers' taste for teaching and the passion for the learning progress, being expected to transmit students their enthusiasm, arousing the passion for what they learn. The teacher not only teaches, but he also knows how to do something and what he knows to do is not only to teach; it consists

essentially of helping people to grow and develop the potential that they all have, in configurations and diversified degrees (Abreu, 1996). The same author stresses that supporting students in the acquisition of SEC should be another great challenge of teacher intervention, considering that one can no longer take refuge in a teaching-learning relationship based on the transmission of knowledge but rather be recognized as a human development agent.

With the implementation of programmes to promote SEC academic success will be a reality and this way schools will be more successful in their educational mission (Elias et al., 1997). In addition, these programmes ensure meaningful learning at the level of SEC that promote friendly relations with peers, or that prevent difficulties in interactions with others (Ladd, Herald & Andrews, 2006).

2.3. Research Questions

The goals of SEL programming are to promote students' social-emotional skills and positive attitudes, which, in turn, should lead to improved adjustment and academic performance as reflected in more positive social behaviours, fewer conduct problems, less emotional distress, and better grades and achievement test scores (CASEL, 2008).

Based on the assumption that all children benefit from SEL, it is imperative to create a programme based on short stories and illustrations, considering their benefits in children's development, aiming to promote the identification and management of emotions in children with ID, since SEC programmes directed for this population are still scarce.

Taking into account the wide range of advantages of SEL programming it is important to understand and verify if the objectives and the contents of "Smile, Cry, Scream and Blush" are adequate enough considering the target population for which it was designed.

2.4. Purpose of the Study

Based on a consistent theoretical background that focuses on programmes to promote SEC, this study aims to describe the creation and validation of the emotional content of each illustration and story for a new intervention programme directed to children with ID. The programme is built around these short stories properly illustrated, making use of several playful-didactic materials to be implemented throughout 8 sessions, being that each session should last between 30-40 minutes.

"Smile, Cry, Scream and Blush" is a programme that aims to promote SEC in children with ID created from scratch and which includes original illustrations and short stories directed for each of the emotions: happiness, sadness, fear, anger, shame and pride.

The main purpose of the study is the programme's construction and validation by experts in emotional development and children's literature, and by children with and without ID. It was made a pilot study with 3 groups of 7 subjects each with the purpose of verifying the suitability of contents and objectives to young people and children with ID.

2.5. Research Methods

Taking into account the need to deepen the knowledge of effective programmes on SEC it was made a systematic literature review on programmes highlighting their strengths, their advantages as well as their weaknesses and flaws. Alongside this, it was built a new programme based on the assumptions of SEC programmes, that aims to promote these competences in children with ID, following and respecting the several stages needed to validate it as an effective instrument.

It is also a descriptive type of quantitative research, where the relative frequencies were calculated for each emotional expression presented by the characters, and the pilot study sample of 21 subjects was characterized.

2.5.1. Programmes to promote SEC

The development of SEC, considered a basic competence for life, leads to SEL. It is urgent to define goals, establish contents, plan activities and intervention strategies to design intervention programmes in order to be studied and evaluated (Bisquerra, 2003).

Programmes dedicated to the development of SEC should involve: the self-knowledge, that is, the ability that children develop to identify in emotional experiences their own emotions, thoughts and the way they act on their behaviour; self-regulation which translates into the children's ability to learn to regulate their emotions, controlling their impulses and motivating themselves to overcome these same situations; social awareness, translated into the ability to take an empathic perspective on others and recognize them as support resources; relationships management which is the ability to develop and maintain healthy relationships and conscious decision-making, that is, the ability to make decisions in a responsible and constructive way taking into account ethical and social standards (CASEL, 2008).

The abovementioned programmes, to be considered as quality ones, should emphasize cognitive, affective and behavioural competences (Vale, 2012). Since these competences represent the first step towards SEL they need to be taught and students should be motivated for their learning and daily use. Therefore, another of the quality factors of a programme lies precisely in teaching strategies, which should include competency-based modelling, provide students with opportunities to practise these new skills and give feedback and reinforcement (Hawkins, 1997, quoted by Graczyk, Weissberg, Payton, Elias, Greenberg, & Zins, 2000). Children should be seen as active learners and employ interactive strategies. Thus, the techniques to be trained should make use of methodologies that privilege group work, cooperative learning, role-play and thematic discussions (Dusenbury, Falco, Lake, Brannigan & Bosworth, 1997, quoted by Graczyk et al., 2000). Through dialogue, the teacher should encourage children to think about situations, to become aware of their emotions, to generate strategies to successfully solve the problem.

An aspect of great importance is emphasized by the Collaborative for Academic Social and Emotional Learning (CASEL, 2003) by arguing that programmes should be for all students and not only for those with risky behaviours, because all benefit from socio-emotional development. In this way, it is also important to emphasize their importance to children with ID, even because the existence of programmes directed to this population is still scarce (Faria, 2016). The intensity of the programmes' implementation is not of minor importance. The studies argue that the activities that are part of the programmes should be practised weekly and not sporadically, presenting a sequence and not isolated activities (Vale, 2012; CASEL, 2003).

2.5.2. Short stories as part of programmes to promote SEC

"Little Red Riding Hood was my first love. I felt that if I could have married her, I would have known true happiness." This statement by Charles Dickens indicates that he, as countless millions of children throughout the world and through the ages, had also been enchanted by fairy tales (Bettelheim, 1976).

The word "tale" comes from the Latin *computone* and means to tell, enumerate actions; it means to report, tell stories, which like every story requires an argument that supports itself, that gives it a meaning, a reason for being: to give it life (Bruder, 2000). This linear and simple structuring seems, therefore, to allow the construction of possible worlds with which the children will identify themselves, creating space for the projection and the dialogue of affections that will favour their emotional development (Santos, 2006). In addition to these features, Colomer (2003) considers that the traditional tale is the most appropriate narrative to the children's literacy skills, being that other aspects contribute to the configuration of its

specificity as a narrative genre: short text, few characters and with distinctive marks marked and appropriate to children's thinking (e.g. good/bad), that does not know the non-radical nuances; the actions of the characters determined by external factors (easily understood by children); the dichotomous moral that rewards the good and punishes the bad; the timeless and inaccurate setting of the tale; the closed episodic structuring, without simultaneity of actions; abrupt ending.

Children will benefit if the involved activities have stories as the main base since while it distracts them, the tale elucidates them on themselves and promotes the development of their personality. Bettelheim (1976) states that the tale has so many meanings, on so many levels, and enriches the child's existence in so many ways, that any book is able to match the amount and diversity of contributions that tales bring to the child.

The tale gives voice to all the fears that the subject has to face, like rivalries, taboos, struggles, the fear of death, of growth, of everything that is unknown; meets the loves, the hatreds, the distrust and the joy, the persecution and the happiness, displaying, in an exemplary manner, the struggles between good and evil, between the allowed and the forbidden, between the victories and the disappointments of the subject. It also meets the child's animist thinking and reality allowing him to fully trust what the tale reports. As the world of tales agrees with his, it can reassure his fears (Santos, 2002). Moreover, the unrealistic nature of tales is important because it makes it obvious that the purpose of short stories is not to give useful information about the outside world, but rather on the inner psychological processes that take place in an individual (Bettelheim, 1976).

Thus, the tale serves the child in a perfect way. First because it is a wonderful entertainment, then because it tells about the triumph of the weakest, the smallest, the youngest or even the ugliest. This disconcert satisfies the child as it meets his most primal desires. In the stories special contours are outlined, time is marked, characters are defined, rhythms are instilled, future designs are announced, possible worlds are built. Also, values, behaviours, attitudes and the existence of a particular social order are defined. It is promoted the development of imagination, observation, memory and knowledge (Santos, 2006).

Albuquerque (2000) states that for all its characteristics, the tale is an important organizer of affections, containing emotions and feelings, allowing the child a permanent dynamic construction.

Telling and hearing stories comes close to a magical act, able to marvel children, to leave them amazed at the art of simplicity, to make them fun with weird combinations, to leave them perplexed because they find characters of their age with so many problems, to leave

them with doubts about tolerance, the right to difference, able to put them to think (Sousa, 2000).

It seems evident that are the affective factors that allow the child to give the world and life a systematization, using its fantasy potential with an affective function of world reconciliation and order. In many circumstances' imagery and the use of meaningful images emerge as a form of knowledge integration (Albuquerque, 2000; Santos, 2006). It is with the entrance in the first cycle of the basic education, the beginning of scholar path, between the 5 and the 6 years, that children begin to identify themselves with the story: they listen to it and try to control the narration by integrating new knowledge with previous one. At this stage children are ready to tell the story, expressing enthusiasm for doing so. It is important to recognize that as a natural form of narration, the retelling is always a revision and affirmation that the knowledge is consolidated, although the child always tries to make some changes, but always demonstrating that he understands the story in its depth (Martins, 2000). Around 7 years old, the child brings the characters of the imaginary to the real plane using dialogues between the characters similar to those in his daily life, opting for a plot type more similar to the real world, suppressing some aspects inherent in the fantastic, but always using symbolization and the power of abstraction that he inherited from the phase of the primacy of fantasy (Azevedo, 2006).

The tale is of great structuring importance transmitting the child models for the understanding of their conflicts and anxieties, suggesting examples of solution, temporary or permanent, showing that fighting difficulties of life is inevitable, but that it is possible to overcome them (Tompkins, Guo & Justice, 2013). Interaction with stories awakens emotions in children as if they are experiencing them, allowing through imagination to exercise problem-solving ability that arise in their daily lives (Souza & Bernardino, 2011).

Stories may be a privileged strategy for children to work on their emotions and understand others'. Gavazzi and Ornaghi (2011) explored what happens when children do not only hear stories that contain many words that describe emotions, but have also the opportunity to reflect on the meaning of these words along with other children, under the guidance of an adult. It was found that the active use of these terms in daily conversations increased children's competence in understanding their emotions.

According to Castro (2008) the child, with his imaginary wealth and his ability to experience the make-believe, plunges into a charming universe, where they deal with feelings of good and evil, where characters such as fairies, witches, stepmothers, princes and princesses may appear. In this way, the child identifies emotions as sadness, anger, insecurity, happiness, tranquillity, anguish, anxiety and fear, being through the exercise of make-believe that he deals with his feelings and imaginations with less anguish.

According to Guhur (2007) individuals with ID present a form of nonverbal expression signalling affective states that may be result of the absence of symbolic resource to express themselves. Thus, in contexts of intervention, they may present a compulsive laughter as a way to regulate the shame. It is also worth noting the predominant way of expressing affectivity through organic expression in which it is the body itself to reveal the emotions through gestures, postures and silences. This mode of exteriorization of emotions demonstrates the little knowledge that some individuals have of the linguistic resources so the researcher must be alert to all non-verbal language (Pereira & Faria, 2015).

2.6. Findings

As it was mentioned, SEL benefits all students since all benefit from socio-emotional development. It is important to emphasize their importance to children with ID because there is a lack of programmes directed to this population. The programme "mile, Cry, Scream and Blush" was created with the purpose of fill in the gaps and overcome obstacles found in other programmes.

2.6.1. The construction of the programme "Smile, Cry, Scream and Blush"

Whatever our age, only a story that conforms to the principles underlying our thinking has the power to convince us. If this is so for adults, it is truer for children, for their animistic way of thinking (Bettelheim 1976).

Through adult intervention, narratives appear as strategies for the achievement of learning the level of writing, language, increased vocabulary, speaking and as a way of acquiring values and concepts. The description of the stories, aided by the visualization of symbols, stimulates the child's creativity and imagination while arouses his curiosity, exteriorizes emotions and helps to resolve conflicts through the game of make-believe. The diversity of contents, the way they are reported and the very language of tales are considered to be relevant in cognitive and emotional development as well as on the child's personality formation (Couto, 2003; Souza & Bernardino, 2011).

Based on a bibliographical review that focuses on programmes that aim to promote SEC, and based on the assumptions above the programme "Smile, Cry, Scream and Blush" was developed with the purpose of promoting these competences in children with ID since the existing programmes are mainly aimed at children without any SEN (Faria et al., 2016).

Three mascots have been created to accompany the programme over its eight sessions: *Pedri*, a pebble that feels neither pleasant nor unpleasant things, does not feel neither the positive nor the negative emotions; *Esponjinha*, a sponge that absorbs all situations very intensely, coming to exaggerate both the positive as the negative emotions; *Coradinho*, a very thoughtful heart which reacts emotionally appropriately to different situations.

All sessions begin with a short story having as main characters one, two or the three mascots. After a motivational dialogue, the session continues with a second story focusing on one of the emotions to be worked and with a main character, animal or human. Thus, the programme was built around short stories, illustrated and with simple language, whose excerpts are in table 4, since in individuals with ID a linguistic delay persists in several domains, notably in syntactic development and verbal comprehension. The use of negative phrases, past and future tenses are especially difficult for these children (Thirion-Marissiaux & Nader-Grosbois, 2008).

The illustrations were validated, initially by seven experts in the area of emotional development and children's literature, and in a second phase by a group of 20 subjects with ID, aged between 8 and 20 years old and by a group of 20 subjects without ID with the same ages. They were asked to express their views on each of the characters' expressions, indicating whether they agreed or not, with Yes or No in each illustration, as it can be seen in table 1.

Table 1. Characters from all the short stories expressing the different emotions

Emotions						
Characters	Happiness	Sadness	Fear	Anger	Shame	Pride
Coradinho						
Pedri						
Esponjinha						
Turtle Sisu						
Snail Chorinho						
Witch Verruga						
Serafim Zangadim						

Table 1. (continued)

Safira						
Jaime						

Through Table 2, it is possible to verify that all the pictorial representations of the emotions have been approved:

Table 2. Validation of the illustrations in two stages

Emotions												
	Happiness		Sadness		Fear		Anger		Shame		Pride	
Characters	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage
Coradinho	100%	100%	100%	100%	86%	100%	100%	100%	100%	100%	71%	100%
Pedri	100%	100%	100%	100%	86%	100%	100%	100%	100%	100%	71%	100%
Esponjinha	100%	100%	100%	100%	100%	100%	100%	100%	86%	100%	86%	100%
Turtle Sisu	100%	100%	86%	100%	86%	100%	86%	100%	57%	100%	86%	100%
Snail Chorinho	100%	100%	100%	100%	86%	100%	86%	100%	100%	100%	71%	100%
Witch Verruga	100%	100%	86%	100%	100%	100%	86%	100%	100%	100%	71%	100%
Serafim Zangadim	100%	100%	100%	100%	100%	100%	100%	100%	71%	100%	100%	100%
Safira	100%	100%	100%	100%	100%	100%	100%	100%	71%	100%	71%	100%
Jaime	100%	100%	100%	100%	100%	100%	86%	100%	86%	100%	86%	100%

The programme is applied in groups of 7 or 8 children, in school environment and in sessions of about 30 to 40 minutes. It covers 8 sessions where six emotions are worked through materials such as the wheel of emotions or the silhouette of the characters, as it can be seen in table 3.

Table 3. Programme structuring.

Characters	Emotions	Material	Time
3 mascots: *Coradinho* *Pedri* *Esponjinha* **6 main characters:** *Turtle Sisu* *Snail Chorinho* *Witch Verruga* *Serafim Zangadim* *Safira* *Jaime*	Happiness Sadness Fear Anger Shame Pride	Short stories (13) Wheel of emotions Cards Silhouette of the characters Mirror	8 sessions 30-40 minutes each session

It should be noted that the first session gives a brief overview of all the emotions that will be worked in the following sessions: happiness, sadness, fear, anger, shame and pride; the eighth and last session also addresses all the emotions and it is made a consolidation of all the work developed, reminding all the characters in the programme, asking children which ones they liked the most, which ones they liked the least, with which characters they identified, which were completely different from them, what they would change in the stories, etc. In this session, in addition to activities similar to previous sessions it will be important to make use of a mirror and ask children to express emotions and compare them with those of their colleagues and also to try to guess their colleagues' emotions. It will be an important session to systematize all the work developed throughout the programme.

Thus, the application of the programme follows a linear structure, as it can be seen in table 4, complying with procedures that must be followed in all sessions so that children feel more and more familiar with the intervention.

Table 4. Programme structuring with excerpts from the short stories

Session	Characters	Emotion	Excerpts
1	3 mascots	all	*In a distant and colourful country lived three friends who had a good relationship although they were very different from each other.*
2	3 mascots + *Turtle Sisu*	happiness	Story 1: *And so was the little Coradinho, enchanted and contemplating the flower that little by little began to gain lustre and vitality. Faced with what happened, Coradinho felt very happy and thought about how rewarding it was to contribute to the well-being of other beings.* Story 2: *- Come and see the sea! We are being inundated by the waves of joy! Come and see!* *The curious turtles made their way to the beach to see what was happening.*

Table 4. (continued)

3	3 mascots + Snail Chorinho	sadness	Story 1: *The day was sunny and Esponjinha woke up in good mood and determined to leave home to erase sorrows.* Story 2: *Chorinho was a little snail, lonely and unhappy. He lived in a city where everyone spent the day running or walking very fast, thinking only on themselves, forgetting how nice it is to share jokes and conversations. Chorinho was the only one who walked slowly, enjoying the excitement around him, feeling alone, though surrounded by a crowd.*
4	3 mascots + Witch Verruga	fear	Story 1: *Pedri, Esponjinha and Coradinho were playing in the street when the old Painted Lizard, very dull by the way, passed by them and said:* *- Hello my dear friends! You should be more careful while playing here on the street. I've heard that there are bouncy witches out there who startle those who cross them.* Story 2: *One of the inhabitants of Aboboral was Verruga, a little witch different from all the others, as she was very easily frightened and had many fears. Her parents lamented continually at not having a brave daughter, trying, by all means, chase her fears and uncertainties away.*
5	3 mascots + Serafim Zangadim	anger	Story 1: *Suddenly, and without nothing predict, the little Coradinho tripped and fell, getting behind. He felt angry and frustrated, as he had trained hard for that race and he was already seeing that he would not win it.* Story 2: *Serafim was known among his friends as "Zangadim", because he seemed to be always angry with the world. It was rare the day he did not bother with anyone, whatever the reason was. Friends accepted his bad temper, but considered it inappropriate and sometimes they were bored and upset.*
6	3 mascots + Safira	shame	Story 1: *Coradinho lived up to his name and turned red like a tomato; Esponjinha, in turn, took Coradinho's hand and looked around the room looking for Pedri.* *- Welcome dear friends! – ran Pedri, euphoric.* Story 2: *At lunch time, in the school canteen full of boys and girls, the two friends sat facing each other on a table by the wall, trying to go unnoticed. Suddenly, unintentionally, Safira dropped her glass of water on the floor. Very blushing, she did not even know what to do, keeping a charged countenance and avoiding looking around.*
7	3 mascots + Jaime	pride	Story 1: *Pedri, proud of her plays, said that they could stay playing the whole afternoon, but that she understood that losing should not be very pleasant.* Story 2: *- You know, mum, I think I wasn't a good boy today. Just on the way home, I paid no attention to a stray puppy, that was shaking with cold, and that would certainly be hungry. I can't stop thinking about him now.*
8	3 mascots + all previous	all	

The materials used are of easy access and handling. The investigator may choose to tell the stories through a book in which the illustrations should be presented in an appropriate size so that all can see clearly, or through a projector, since the programme can be made available in digital format. The materials to be used after reading and interpreting the short stories are

photocopiable, namely the characters' silhouettes for the children to draw, the cards with the characters expressing the various emotions as well as the wheels of emotions.

Each of the sessions follows a guiding structure of the procedures to be followed. This structure describes specific objectives, warming up activities, activities to be carried out during the session and procedures as can be seen in table 5:

Table 5. Structure of a session

Objetives	Warming up	Comprehension	Presentation with comprehension	Practice
- Read and comprehend two stories; - Recognize and identify the emotion "happiness" in the story and images; - Express orally situations related to the emotion mentioned in the story.	- Start by telling the story 1, whose main character is the Little *Coradinho* (character presented in session 1). - Do you remember *Coradinho*? - Who is he? - How is he? - What does he like doing? - How does he react to danger?	Ask children: - How did the little *Coradinho* feel? - Why did he feel like that? - Which solution did he take to counteract his annoyance? - In which situations do you feel happiness? - What do you usually do to demonstrate your happiness?	Tell children the short story "Waves of happiness". Dialogue on the short story: - Who was *Sisu*? - Where did she live? - How were all her friends? - Who did appear on the island? - How as she? - What did she decide to do? - What do you think the other turtles thought? - How were they probably feeling? - Would you believe *Risinha*? - Why/Why not?	Deliver among children the Wheel of Emotions and ask them to identify how *Sisu* was at the beginning and the end of the story. **Note:** you may replace the Wheel of Emotions by a deck of cards with the same illustrations. Deliver among children a turtle silhouette and ask them to draw the expression of how they would feel if in Sisu's place.

Following all the previous assumptions, objectives and the structure designed, it was peremptory to make a pilot study with the programme "Smile, Cry, Scream and Blush" in order to test and observe its adequacy to children with ID.

It was used a sample of 21 subjects with ID divided in three groups of 7 and attending three different schools from two Portuguese cities, Castelo Branco and Abrantes. The average age was 9,2 as two groups were attending years 3 and 4 and one group was attending year 5 of elementary school. The programme was implemented and worked over eight weeks with one session per week and the children's involvement was notorious and increasing week after week. The characters and the stories remained in most of children's memory as they kept talking about them until the end of the intervention.

With the pilot study, it was observed that throughout the programme there were no problems raised by children so it was not necessary to make changes. It seems clear that the eight sessions were enough, as well as the time of each session, the instructions were clear, the short stories were easy to understand due to their simplistic language, and the illustrations were appealing and clear in expressing the emotions.

2.7. Conclusion

Emotional education is an educational process, continuous and permanent, which aims to promote the development of SEC as an essential element of human development and for the purpose of increasing personal and social well-being (Bisquerra, 2000, quoted by Bisquerra, 2003). The intervention programmes in this area should follow an eminently practical methodology, with group dynamics, self-reflection, dialogues and games.

Knowing that the learning of SEC is a key element for a healthy development, it is believed that a preventive intervention from the emotional development point of view, which promote these competences, makes perfect sense among young children, with and without ID, translating into their personal and social well-being (Almeida & Araújo, 2014).

The programme "Smile, Cry, Scream and Blush" is oriented to the training of SEC making use of an active and inclusive methodology, namely short stories. These report events that trigger emotions and their consequences, suggesting immediate creative responses (Bruner, 1986). The children's involvement in the story prepares them for future transformations at the physical level, in compliance with the rules, in facing challenges, dangers, threats and social conflicts; it also prepares them to deal with situations that provoke states of anxiety that are necessary to live and to surpass. As the story unfolds the child sees himself in the situation, following the example of the characters' perseverance accepting the solutions or looking for others as a way to minimize or even overcome their anguish. The development of the story promotes imaginations and relieves social tensions (Traça, 1992). The world of the story is the imaginary world of the child, full of hope, possibilities and creative solutions, essential to face and overcome problems, deal with emotions, comfort and provide a sense of security (Souza & Bernardino, 2011).

Starting from the assumptions on which the programmes of promotion of SEC are based and considering this learning as essential to education, the programme "Smile, Cry, Scream and Blush" was created to explore the aspects related to the development of SEC since the best way to prevent socio-emotional problems is to develop these competences (CASEL, 2008; Zins et al., 2004). The programme will be used in a following study that aims to verify and validate its effectiveness with children with ID.

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Chapter 3

Efficacy of a Socio-emotional Learning Programme in a sample of Children with Intellectual Disability

[Contents of this chapter were submitted for publication on 8, May 2018] (see Appendix I)

Abstract

Socio-emotional Learning (SEL) is the process of developing social and emotional competences through which the child learns to recognize and manage emotions, to care for others, to make good decisions, to behave responsibly and ethically, to develop positive relationships and to avoid negative behaviours (Elias et al., 1997). To promote the development of these competences, specific programmes are used, programmes that matter to evaluate, and which are based on the understanding that many different types of problem behaviours are caused by the same or similar risk factors and that better learning emerges from supportive relationships that make it challenging and meaningful (CASEL, 2003).

This study aims to analyse the impact of a SEL Programme among children with Intellectual Disability (ID). For this, two groups were established, control and experimental, and the Test of Emotion Comprehension (TEC) (Pons & Harris, 2000; Pons, Doudin & Harris, 2004) was applied to both as a pre and post-test. The experimental group was implemented the programme "Smile, Cry, Scream and Blush," based on simply illustrated short stories and alluding to the basic emotions.

The results obtained suggest that the programme is effective in the development of Socio-emotional Competences (SEC) in subjects with ID. The total results obtained in the control group pre-test (M =.48; SD =.24) and in the experimental group pre-test (M =.54; SD =.19) as well in the control group post-test (M=.47; DP=.25) and in the experimental group post-test (M=.96; DP=.07) evidence the positive effects that the intervention programme had with the experimental group.

Keywords: Socio-emotional Learning; Socio-emotional Competences; Intellectual Disability.

3.1. Introduction

Socio-emotional Learning (SEL) is defined as the process of acquiring competencies that allow the recognition and management of emotions, the establishment and achievement of positive goals, the appreciation of the other's perspective, the establishment and maintenance of positive relationships, responsible decision making, and constructive control of interpersonal situations (Durlak, Weissberg, Dymnicki, Taylor & Schellinger, 2011).

Emotional education is an educational innovation that is justified in social needs. Its purpose is to develop emotional skills that contribute to a better personal and social well-being. For this, a series of interrelated conditions are required: first, to design programmes based on a consistent theoretical background; prepare teachers and educators for the implementation of the programmes; support teachers with suitable materials; evaluating programs with appropriate instruments, etc. (Bisquerra, 2003).

Schools will be more successful in their educational mission if they integrate efforts to promote academic, social and emotional learning (Elias, Zins, Weissberg, Frey, Greenberg, Haynes, Kessler, SchwabStone & Shriver, 1997). Although SEL plays important roles in influencing non-academic outcomes, it also plays a critical role in improving children's academic performance and lifelong learning.

Regarding SEC promotion programmes, the Collaborative for Academic, Social and Emotional Learning (CASEL, 2003) considers that these should seek to develop five main competences: self-awareness (recognizing emotions, thoughts, and their influence on behaviour), self-management (regulate emotions, thoughts and behaviours effectively in different situations), social awareness (understanding others' perspective- "Social-perspective Taking," Selman & Byrne, 1974), relational skills (establishing and maintaining healthy and rewarding relationships with different individuals and groups) and making responsible decisions (making constructive and respectful choices about personal behaviour and social interactions).

Intrinsically, schools are social places and learning is a social process. Students do not learn alone but in collaboration with their teachers, in the company of their peers and with the support of their families. Emotions can make it easier or harder for them to learn and succeed. Because socio-emotional factors play such an important role, schools must address this aspect of the educational process for the benefit of all students (Zins, Bloodworth, Weissberg & Walberg, 2004).

Bisquerra (2003) considers that the development of emotional competence, considered as a basic skill for life, leads to emotional education. It is urgent to define objectives, assign content, plan activities and intervention strategies to design intervention programs that will be tested and evaluated.

The evaluation of SEL programmes is a key aspect to move from intervention to research. The novelty of the theme requires the construction of instruments and the proposal of evaluation strategies in emotional education. These instruments will be used in the evaluation of SEC and in the evaluation of programmes that have arisen in large number in recent years. These programmes incorporate efforts in school and family environment and have demonstrated success in promoting mental health, in self-efficacy, in the sense of community, on the academic performance and positive attitude towards school (Zins et. al, 2004; Elbertson, Brackett & Weissberg, 2010). However, it is evident the difficulty in finding programmes aimed at children with Intellectual Disability (ID), being necessary to work more in this area (Faria, Esgalhado & Pereira, 2016). Some authors consider that these children identify and recognize emotions in themselves and in others, like children without ID do (Moore, 2001; McClure, Hapern, Wolper & Donahue 2009). However, other authors point out that there are some gaps regarding the identification and differentiation between fear and anger (Sovner & Hurley, 1986; Bremejo, 2006; Pereira & Faria, 2015). These authors further reinforce the idea that individuals with ID demonstrate difficulties in organization and coping strategies. This difficulty in adaptively manage some situations leads to some anxiety and the eventual manifestation of inappropriate behaviours that can be attenuated with the implementation of an intervention programme.

A school for all presupposes equal opportunities, a common starting point with the necessary adjustments along the way. The teaching-learning processes may be subject to several obstacles that refer to students, but also to teachers, who must manage the difficulties arising from the insertion of students with marked differences in the same context (Sim-Sim, 2005).

In the inclusive school paradigm, differences regarding the specificities of each individual and the need for adequate responses, which provide equal opportunities, are highly pertinent (Borges & Coelho, 2015). Support students in the acquisition of SEC should be a major challenge of the teacher's intervention, considering that it is no longer possible to take refuge in a teaching-learning relationship based on the transmission of knowledge, but rather to recognize himself as an agent of human development (Abreu, 1996).

Regarding children with ID, several reasons justify the interest in promoting their SEC. According to the ID diagnostic criteria defined by the American Association for Intellectual and Developmental Disabilities (AAIDD, 2018), these children have limitations of intellectual and adaptive functioning, while Baurain & Nader-Groibois (2012) add that these children seem to develop their socio-emotional regulation skills more slowly compared to children without ID, and they also exhibit less social behaviour. It is important to state that the low cognitive skills of these children, which underlie their social skills, delay their initiation and the maintenance of exchanges with their peers. Thus, these characteristics further reinforce the need to promote SEC among these children, being that true inclusion involves all students in

the social and academic life in the classroom and school. As inclusion progresses, children of the same age, with and without ID, enter classrooms with different strengths, weaknesses, learning challenges, basic knowledge, cultures, languages and experiences (Karangwa, Miles, & Lewis, 2010).

According to CASEL (2003), effective SEL programmes are those that directly or indirectly improve academic performance, as well as other positive outcomes. In fact, by fostering the establishment of a safe, welcoming and productive environment, SEL programmes promote greater attachment of the student to school, which is associated with the reduction of risk behaviour. These improvements in school environment transform the way students experience life in school, which improves their academic, psychological and social development. The effectiveness of these programmes also depends on their continuity, their coordinators, teachers, parents and the learner himself, as well as support in planning, implementation and evaluation (Greenberg, Domitrovitch, Graczyk, & Zins, 2005; Devaney, O'Brien, Resnik, Keister & Weissberg, 2006).

It should be noted that when building the programmes, several characteristics should be considered, including the objectives and the sequence of activities to be included, the instructions that allow teachers to implement a wide variety of strategies that actively involve students, structures that allow teachers to articulate SEL with other disciplinary areas of the curriculum, organized and easy-to-follow lesson plans with clear objectives, activities, assessment tools, and a logic that links each individual session to the overall design of the programme. Finally, it is important to have instruments that monitor the application of the program in order to improve it throughout its implementation (Payton, Wardlaw, Graczyk, Bloodworth, Tompsett & Weissberg, 2000).

In short, SEL is often referred to as "the missing piece," since it represents the component of the teaching-learning process that relates academic knowledge to a particular set of competencies that are of enormous importance to children's success in school, family and future career. In this way, the combination of the academic curriculum with SEL is considered essential for the implementation of an effective educational system that reflects the reality of our times (Elias & Arnold, 2006).

3.2. Purpose of the study

This study aims to:

- Evaluate if the implementation of the program "Smile, Cry, Scream and Blush" has positive implications in the promotion of SEC in children with ID;

- Compare the scores obtained in the Test of Emotion Comprehension (TEC) (Pons & Harris, 2000; Pons, Doudin & Harris 2004) between the pre and post implementation phase of the program "Smile, Cry, Scream and Blush" in children with ID;

- Compare the TEC scores between the experimental group and the control group.

3.3. Methodology

The study, which follows a quasi-experimental model (Sampieri, Collado & Lucio, 2006), concerns the evaluation of the effectiveness of a SEL programme by comparing the scores obtained in TEC. There are two groups, one experimental, subject to the exposure of the programme, and one of control, without exposure to the programme. The total scores and the scores of the TEC components obtained by the experimental group and by the control group in the pre and post-intervention phases are compared.

In this sense, it is intended to describe the scores obtained in the variable TEC and to compare the mean scores in this variable in groups of different subjects, control group and experimental group (comparative analysis of independent samples), and between the same subjects at different times in the pre and post-test (related samples).

The following variables are defined:

- independent variable: SEL programme "Smile, Cry, Scream and Blush".

- Dependent variable: TEC score.

3.3.1. Sample

The sample was collected for convenience in 1st and 2nd cycle schools in the central zone of the country and includes 50 subjects diagnosed with mild ID and divided in a control group and an experimental group. The formation of these groups results from the inclusion of the students by geographical grouping of schools and, consequently, determines the n, level of schooling and age of the participants of each group.

The control group consists of 29 subjects, 44.8% (n = 13) attending the first cycle and 55.2% (n = 16) the second cycle; the experimental group is composed of 21 subjects, 66.7% (n = 14) of which attend the 1st cycle and 33.3% (n = 7) attend the 2nd cycle. Of the 29 subjects included in the control group 48.3% (n = 14) are girls and 51.7% (n = 15) are boys; of the 21

subjects included in the experimental group, 42.9% (n = 9) are girls and 57.1% (n = 12) are boys. In both groups the minimum age is 8 and the maximum is 15, being that the mean age in the control group is 10.58 and in the experimental group it is 10.57.

3.3.2. Material

In the scope of this work it was used used: (1) Data questionnaire; (2) Test of Emotion Comprehension (TEC), (Pons & Harris, 2000; Pons, Harris & Doudin, 2004); (3) SEL programme "Smile, Cry, Scream and Blush".

3.3.2.1. Data questionnaire

The data questionnaire was constructed for the present study, in order to obtain information for the sociodemographic characterization of the participants regarding gender, age, level of education, geographical location and socioeconomic context, as well as other health related information. The questionnaire was completed by parents or other adults in charge of children's education.

3.3.2.2. Test of Emotion Comprehension (TEC)

In its original version TEC (Pons & Harris, 2000; Pons, Harris & Doudin, 2004) has nine factors corresponding to nine emotional components. The test is divided into blocks of stories in pre-established order and presents the following nine components: (1) recognition of emotions, based on facial expressions; (2) understanding of the external causes of emotions; (3) understanding of aroused desire; (4) understanding of belief-based emotions; (5) understanding the recall influence in circumstances of emotional states evaluation; (6) understanding the possibilities of controlling emotional experiences; (7) understanding the possibility of hiding an emotional state; (8) understanding the existence of multiple or contradictory emotional responses; (9) understanding of moral expressions (Roazzi, Dias, Minervino, Roazzi & Pons, 2008).

The test consists of an illustrations book with comic strip stories with a simple plot at the top of each page. In each story four possible outcomes are represented by an emotional expression (there are five options: happy, sad, angry, scared, well) and the child is asked to attribute an emotion represented by an emotional expression in each situation. The

instrument is also available in digital format, in which stories and questions are narrated by a female voice. Scoring is done automatically by the application on the computer. In this study, the digital format was used, with the male version, since it is the only one available in Portuguese language (Roazzi, Rocha, Candeias, Silva, Minervino, Roazzi & Pons, 2015). A total score corresponding to the sum of the scores obtained in each of the nine dimensions is found, with a maximum score of 1 in each one. The higher the overall score on the test, the greater the emotional understanding.

3.3.2.3. Programme "Smile, Cry, Scream and Blush"

The program "Smile, Cry, Scream and Blush" was developed with the purpose of promoting SEC in children with ID, since the existing programmes are mainly directed to children without Special Educational Needs (SEN) (Faria, Esgalhado & Pereira, 2016).

Three mascots (Coradinho, Pedri and Esponjinha) were created to accompany the programme throughout its eight sessions, and all sessions begin with a short story with one, two or all the mascots as main characters. After a motivational dialogue as warming-up, the session proceeds with a second story, focusing on one of the emotions to be worked on and with a main character, animal or human (Faria, Esgalhado & Pereira, 2017). Thus, the programme was built around short stories, illustrated and with simple language, since in individuals with ID a linguistic delay persists in several domains, notably syntactic development and verbal comprehension. The use of negative phrases, past and future tenses are especially difficult for these children (Thirion-Marissiaux & Nader-Grosbois, 2008).

The first session takes a brief approach to all the emotions that will be worked out in the following sessions: happiness, sadness, fear, anger, shame and pride; the eighth and last session also addresses all the emotions and it consolidates all the work developed, reminding all the characters of the programme, asking children which ones they liked the most, which ones they liked the least, with which they were identified more, which were completely different of themselves, what they would change in the stories, etc. (Faria, Esgalhado & Pereira, 2017). The researcher may choose to tell the stories through a book in which the illustrations should be presented in an appropriate size so that everyone can see clearly or through a projector, since the programme may be available in a digital format. The materials to be used after reading and interpreting the short stories are photocopiable, namely the character silhouettes for the children to draw, the cards with the characters expressing the various emotions, as well as the wheels of the emotions.

3.4. Procedure

From the procedure used for the collection and processing of the data, developed in six phases, the following steps are described:

Initially, a pilot study was carried out for the implementation of the programme "Smile, Cry, Scream and Blush" in order to verify and ensure their adequacy to children with ID. A sample of 21 subjects with a mean age of 9.2, diagnosed with ID and attending three different schools in central Portugal was used. It was verified that during the implementation of the programme there were no problems or issues raised by the subjects, and therefore no changes were necessary (Faria, Esgalhado & Pereira, 2017).

In a second phase, requests for authorization were made to the Directors of the 3 School Groupings involved in the study, as well as to the Children's parents, ensuring informed consent. At the time of authorization to carry out the study, this was presented to the Directors of the School Groupings in a clear and detailed manner.

In the next phase, a data questionnaire was sent for each child's parents to obtain information about schooling, age, geographical location and socio-economic context, as well as other health-related information of their children that they considered relevant.

In a fourth phase the control and experimental groups were defined and TEC (Pons & Harris, 2000; Pons, Harris & Doudin, 2004) was applied as a pre-test to both groups. The test application was done individually in a classroom, at school, using a laptop. The instructions were given clearly, and all doubts were clarified. The stories were narrated, the questions were asked by the aforementioned female voice, and the researcher repeated the question, clarifying the story, whenever necessary. After each question, the child chose the answer and automatically move on to the next story. The TEC application stored the answers that were later analysed in the Statistical Package for Social Sciences (SPSS) program version 24.0. The application of TEC took between 15 and 20 minutes with each child, in both the pre-test and post-test.

In the next phase, the "Smile, Cry, Scream and Blush" programme was implemented in the experimental group, divided in 3 subgroups of 7 children each, each subgroup belonging to a different school. All subjects were informed about the operation of the programme, and confidentiality and voluntary participation in the activities were guaranteed.

The programme was carried out in a school environment, in conjunction with the teachers in the 1st cycle classes, the 2nd Cycle Class Directors and the Special Education Teachers of the children involved in the study. Each session, in a total of 8 sessions, lasted between 40-45 minutes and all of them counted on an active participation of all subjects. The investigator

read the stories out loud, projecting the stories so that all subjects could clearly visualize the illustrations. The comprehension of the short stories was done in group, and children were asked questions about the emotional states of the characters, the possibility of them being in the place of the characters, as well as some ways to manage and regulate the emotions expressed by the characters. Then, activities of identification of emotional expressions were made with a wheel of emotions and with cards of emotions in which the characters of the stories were; characters silhouettes were distributed blank for children to draw emotional expressions; the narration of possible endings for the stories with an open end was requested; the children were asked to express a felt emotion if they were in the place of the characters, having the colleagues to guess.

In the sixth and final phase, TEC was applied again, as a post-test, to the two groups of subjects. Its application occurred following the procedures used in the pre-test.

Data collection was performed between December 2016 and June 2017, including the pre-test to the control group and the experimental group, the implementation of the programme to the experimental group and the post-test to both groups.

3.5. Findings

The analysis of the impact of the intervention programme started by testing the normality of the sample and once N<30, we used Shapiro-Wilk test, observing SIG (P-value) <0.05 so it is observed that the distribution is not normal, being used non-parametric statistics. A non-parametric statistical test, the Wilcoxon Signal Test, was used to compare the means, since the samples were paired.

In the experimental group, for the total score in TEC, comparing between the pre-test and the post-test it was observed, according to the Wilcoxon Signal Test for related samples that the null hypothesis is rejected (p<.001), so there are statistically significant differences between the mean scores in the pre-test (M=.54; SD=.19) and in the post-test (M =.96; SD=.07).

In the control group, according to the Wilcoxon Signal Test for related sample, the null hypothesis (p=837) is retained that there are no statistically significant differences between the mean pre-test scores (M=.48; SD=.24) and in the post-test (M=.47; SD=.25). These results can be seen in Figure 1.
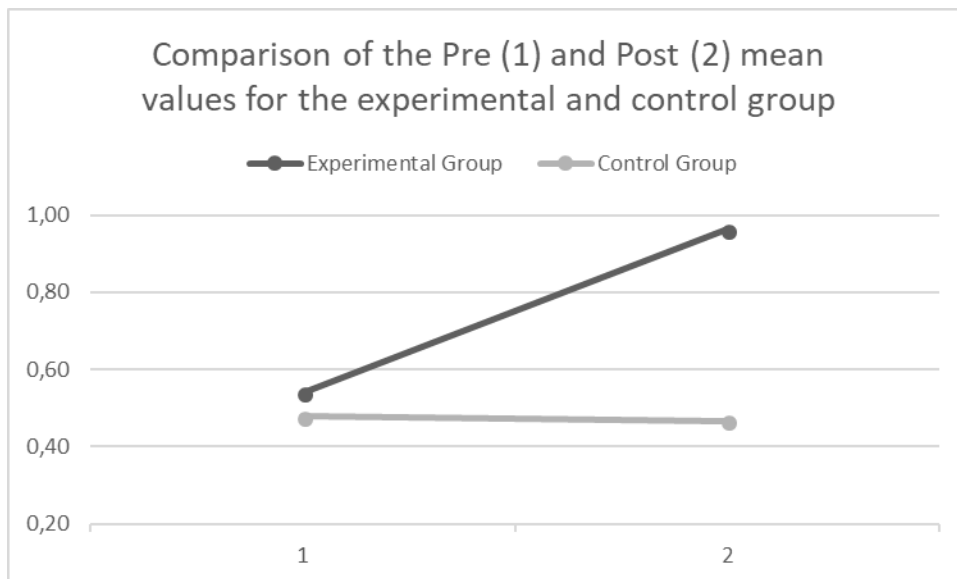
Figure 1:

Values for the comparisons of the pre and post means for the experimental and control groups

In the control group, according to the Wilcoxon Signal test, it can be observed that there are no statistically significant differences between the mean scores of the pre-programme and the post-programme phases in the means of the nine components. In the experimental group, significant differences were observed in all components in the mean values from the pre-phase to the post-test phase, except for C1.

Regarding the control group, it is observed that in the first component (C1) there are no statistically significant differences between the mean values of the pre-test (M=.65; SD=.48) and the post-test (M=.65; SD=.48). In relation to C2, it is also possible to observe that there are no statistically significant differences between the mean values of the pre-test (M=.65; SD=.48) and the post-test (M=.62; SD=.49). As for C3, the values presented between pre-test (M=.51; SD=.50) and post-test (M=.51; SD=.50) show the absence of statistically significant differences between their mean values. In the next component, C4, there are no significant differences between the pre-test mean values (M=.34; SD=.48) and post-test (M=.34; SD=.48). The absence of statistically significant differences between the pre-test mean values (M=.34; SD=.48) and post-test (M=.27; SD =.45) continues at C5. In the following component, C6, mean values of pre-test (M=.37; SD=.49) and post-test (M=.44; SD=.50) show no statistically significant differences. The seventh component (C7) continues not to check for statistically significant differences between pre-test mean values (M=.51; SD=.50) and post-test (M=.48, SD=.50). In the eighth component there are also no statistically significant differences between the pre-test mean values (M=.41; SD=.50) and post-test (M=.41; SD=.50). Finally, in the last component (C9) the same happens, with no statistically significant differences

between the pre-test mean values (M=.51; SD=.50) and post-test (M=.44; SD=.50) (see Table 1).

Table 1

Distribution of the mean values (± SD) in TEC components comparatively between the pre-test and post-test phases for the control group.

TEC	Phase	M	SD	z	p
C1	pre	.65	.48	.000	1.000
	pos	.65	.48		
C2	pre	.65	.48	-.447	0.655
	pos	.62	.49		
C3	pre	.51	.50	.000	1.000
	pos	.51	.50		
C4	pre	.34	.48	.000	1.000
	pos	.34	.48		
C5	pre	.34	.48	-0.816-	0.414
	pos	.27	.45		
C6	pre	.37	.49	-1.000	0.317
	pos	.44	.50		
C7	pre	.51	.50	-1.342	0.180
	pos	.48	.50		
C8	pre	.41	.50	0.000	1.000
	pos	.41	.50		
C9	pre	.51	.50	-1.000	0.317
	pos	.44	.50		
Total	Pre	.48	.24		
	Pos	.47	.25		

*p< .05
**p< .01
***p<.001

As shown in Table 2, in the experimental group, in the first component there are no statistically significant differences between the pre-test mean values (M=.95; SD=.21) and the post-test mean values (M=1.00; SD=.00). In the second component (C2), there are statistically significant differences between the mean values of pre (M=.80; SD=.40) and post-test (M=1.00; SD=.00), and the same is true regarding C3 between the mean values of pre (M=.57; SD=.50) and post-test (M=1:00; SD=.00). Regarding the fourth component (C4), we also

observed statistically significant differences between the mean values of pre (M=.57; SD=.50) and post-test (M=.95; SD=.21), continuing to be observed these differences in C5 (M=.47; SD=.51) and (M=1:00; SD=.00). In C6 the statistical differences are very significant between the pre-test values (M=.52; SD=.51) and post-test (M=.95; SD=.21). In component 7, the pre-test mean values (M=.33; SD=.48) and those in the post-test (M=.95; SD=.21) are statistically very significant. C8 shows statistically significant differences between the mean values observed in the pre-test (M=.42; SD=.50) and in the post-test (M=.95; SD =.21). In the last component, the observed values show statistically very significant differences between the pre-test mean values (M=.19; SD=.40) and post-test (M=.85, SD=.35).

Table 2

Distribution of the mean values (± SD) in the TEC components compared between the pre-test and post-test phases in the experimental group.

TEC	Phase	M	SD	Z	p
C1	pre	.95	.218	-1.000	0.317*
	pos	1.00	.00		
C2	pre	.80	.40	-2.000	0.046**
	pos	1.00	.00		
C3	pre	.57	.50	-3.000	0.003**
	pos	1.00	.00		
C4	pre	.57	.50	-2.828	0.005**
	pos	.95	.21		
C5	pre	.47	.51	-3.317	0.001**
	pos	1.00	.00		
C6	pre	.52	.51	-3.606	0.000***
	pos	.95	.21		
C7	pre	.33	.48	-3.000	0.003**
	pos	.95	.21		
C8	pre	.428	.50	-3.317	0.001**
	pos	.95	.21		
C9	pre	.19	.40	-3.742	0.000***
	pos	.85	.35		
Total	Pre	.54	.19		
	Pos	.96	.07		

*p< .05
**p< .01
***p<.001

3.6. Conclusion

The objectives of the programme "Smile, Cry, Scream and Blush" are in line with those defined by CASEL (2008) and involve: self-knowledge, that is, the child's ability to identify emotional experiences in their own emotions, thoughts and the way they act on their behaviour; the self-regulation that translates into the child's ability to learn to regulate their emotions, controlling their impulses and motivating themselves to overcome these same situations; the social awareness, translated in the capacity to take an empathic perspective towards others and to recognize them as resources of support; the management of relationships, that is, the capacity to develop and maintain healthy relationships and conscious decision-making, in other words, the capacity to make decisions in a responsible and constructive way taking into account ethical and social standards (Faria, Esgalhado & Pereira , 2017). These are the SEC promoted by the programme that TEC (Pons & Harris, 2000; Pons, Doudin & Harris, 2004) intends to evaluate through nine components. The post-test scores on most of the components in the experimental group seem to show the positive effects of the programme suggesting, in this way, the achievement of its general objectives.

The results obtained in this study suggest that the programme is effective in the development of SEC in subjects with ID. The total results obtained in the control group pre-test (M=.48; SD=.24) and in the experimental group pre-test (M=.54; SD=.19) as well as in the control group post-test (M=.47; SD=.25) and in the experimental group post-test (M=.96; SD=.07) showed the positive effects that the intervention programme had on the experimental group. The analysis of the results obtained in each of the components allows to clarify and discuss the effectiveness of the programme implementation.

With regard to the comparative analysis of the results obtained in the experimental group between the pre and post-programme phases, there are statistically significant differences for all components of the test and for the total score, except for component 1 (p=0.317). In fact, this component concerns the recognition of emotions, based on facial expressions. It is evaluated through a classic task of recognizing four basic emotions - happiness, sadness, anger and fear - and additionally the neutral condition (well) (Roazzi et al., 2008). It is a task that children without any type of ID are able to overcome by 2-3 years old (Hughes & Dunn, 1998), the same happening with subjects with mild to moderate ID (McClure et al., 2009). Thus, recognition of emotions in both groups, with ages greater than those indicated for the acquisition of this skill, helps to explain these results.

Component 2 assesses the understanding of the external causes of emotions and it is also evaluated through a classical task, that of understanding the causes of emotions (situational elements) (Roazzi et al., 2008). It is a task that children without ID can achieve from the age of 4 (Hughes & Dunn, 1998; Rieffe, Meerum Terwogt & Cowan, 2005), but in which children

with ID have some limitations (Sovner & Hurley, 1986). It is observed for the experimental group that there are statistically significant differences between the pre-test and post-test mean values (p = 0.046), which suggests a positive impact of the programme.

The next component explores the understanding of the aroused desire. With this component it is intended that the child is able to understand that different desires can provoke different emotions about the same event (Roazzi et al., 2008). According to the literature, it is from the age of 4 that the child without ID can understand the role played by desires in deciding their emotional responses (Hadwin & Perner, 1991), being that limitations in this aspect are notorious when it comes to children with ID (Sovner & Hurley, 1986). In this study, there were statistically very significant differences between the pre-test and post-test mean values (p=0.003).

Component 4 concerns the understanding of emotions based on beliefs and requires the understanding of false beliefs, making use of an adaptation of the Little Red Riding Hood story. The understanding of false beliefs in children without ID arises around age 4, but the understanding that beliefs, whether true or false, can trigger emotions emerges at about 5-6 (Bradmetz & Schneider, 1999; Harris , Rosnay & Pons, 2005; Sabbagh, Shiverick, and Moses, 2006). Regarding children with ID, no scientific evidence was found regarding the understanding of the influence of beliefs on the understanding of emotions. However, statistically significant differences (p=0.005) were found between the pre-test and post-test mean values.

The fifth component evaluates the influence of recall understanding in circumstances of emotional states evaluation and establishes the relationship between memory and emotion. The emergence of this competence arises around the age of 6 in subjects without ID (Roazzi et al., 2008), but the same does not occur in children with ID, taking into account their developmental cycle (Thirion-Marissiaux & Nader-Grosbois, 2008). Between the pre and post-test mean values, statistically very significant differences (p=0.001) occurred again.

The sixth component addresses the understanding of the possibilities of controlling emotional experiences and the alternatives of response are not as for the previous components, simple facial expressions of emotion. In this, they concern different ways of facing the situation that causes a negative emotion. As a rule, these behavioural strategies are used more frequently by children between 6-7 years old, while mental-type strategies that focus more on psychological aspects such as denial, distraction, among others, appear around the age of 8, in children without ID. Glenn & Cunningham (2002) reported that in individuals with ID, the development of the self-regulation process is much slower than in individuals without ID, being identified some specific deficits. Regarding the TEC, between the pre-test and post-test mean values, there were statistically very significant differences (p=0.000).

The seventh component concerns the understanding of the possibility of hiding an emotional state, a competence that arises between ages 4 and 6, when the child is expected to begin to understand the discrepancy between the external emotional expression and the real emotion internally felt (Joshi & MacLean, 1994). It is a self-regulation mechanism that in children with ID develops more slowly, being identified some specific deficits such as difficulty in planning, in monitoring and flexibility of problem solving, in self-regulated attention, difficulties in ordering, weak persistence, high request for help during a task, and low self-motivation (Glenn & Cunningham, 2002; Vieillevoye & NaderGrosbois, 2008). Regarding TEC application to the experimental group, there were statistically very significant differences between the pre-test and post-test mean values (p=0.003).

Component 8 concerns the understanding that a person may present multiple or even contradictory (ambivalent) emotional responses to a particular situation (Roazzi et al., 2008). According to literature (Harter & Whitesell, 1989) it is expected that younger children, with and without ID, attribute the character a single emotion. It is noted for the experimental group that there are statistically significant differences between the pre-test and post-test mean values (p=0.001), and the positive impact of the programme continues to be evident.

The last component of TEC concerns the understanding of the role of morality. It is from the age of 8 that children without ID begin to understand that negative feelings derive from a morally reprehensible action such as lying, stealing, or hiding a wrong act, and that positive feelings derive from a morally commendable action, such as doing a sacrifice or resisting a temptation (Roazzi et al., 2008). Regarding children with ID, besides the slow process of SEC development, Marinho (2001) considers that the poor elaboration of the internal speech of these subjects can minimally contribute to the development of moral conduct capacities. It is verified, similarly to the previous components for the experimental group, that there are statistically very significant differences between the pre-test and post-test mean values (p=0.000).

The results presented with the implementation of the programme "Smile, Cry, Scream and Blush" are in line with the results of other studies that have used SEL programmes, being PATHS (*Promoting Alternative Thinking Strategies*) one of them (Greenberg & Kuché, 1993). It is a programme designed to promote SEC in students and teachers having as effects, among others, the improvement in resolution of socio-emotional problems, the increase in the recognition and understanding of emotions (in themselves and in others) and decrease problems of conduct (Ocak & Arda, nd, in Amaral, 2014). Its implementation among children with ID led to immediate and significant improvements in comfort and discomfort feelings. Likewise, it revealed an increase in the understanding of emotions and an improvement in the competence to identify emotions in others, along with a greater ability to solve problems and self-control (Greenberg & Kusché, 1993).

Like "Growing Playing" programme (Pereira & Moreira, 2000), which uses illustrations to promote psychological adjustment and consequently SEC, "Smile, Cry, Scream and Blush" also proves to be effective in terms of assertiveness, self-confidence and decision-making (Pereira & Moreira, 2000; Freitas, Prette & Prette, 2012; Crusellas, Cross & Barbosa, 2013).

The results obtained in the present study also corroborate the results of studies carried out with "Zippy's friends" programme (Mishara & Ystgaard, 2006) that, in addition to the similar methodology (illustrated stories) addresses children's issues and difficulties, but also highlights their strengths, skills and positive emotions in children without any problems and in children with SEN (Wong, 2008; Clarke, 2011).

Despite the corroboration of the results obtained with the "Smile, Cry, Scream and Blush" with the results obtained in previous studies with other programmes, it is important to note that these were not specially designed to be implemented with children with ID, being only considered suitable for such use. Thus, "Smile, Cry, Scream and Blush" emerges as something innovative, with positive implications for educational practice, since the promotion of SEC in school leads not only to a better academic performance (Zins et al., 2004) but optimizes the child's social, emotional, physical, intellectual and moral performance (Payton et al., 2000).

Educating emotions is the art of teaching others to be human (Céspedes, 2008). In this way, SEL aims to teach children to be self-conscious, socially aware, able to make responsible decisions and be competent in personal management as well as in relationship management, while promoting academic success (Zins et al, 2004). It is an essential process for the integral development of the subject, being that the strategies to be adopted should be adequate for the development of children with and without ID, with repetition at different ages to suit comprehension and ability (Goleman, 1997).

3.7. Final considerations

Most studies of emotions in people with ID are directed only at the recognition of emotions. They reveal that individuals with ID can confidently identify their own emotions (McClure et al., 2009), but this task has immense flaws when compared to individuals without ID of the same age. Some studies describe the implementation of SEL programmes with students with ID (Valenzuela, 2011; Espejo, 2009), but their analysis shows weaknesses in evaluating the programmes and their effectiveness, supported by the lack of scientific research on the design, development and evaluation of this type of programmes for this population. Thus, there are still no studies regarding the results after the implementation of intervention programmes with this population, and the positive impact of this type of intervention seems

to be evident. This gap, surpassed in this study, supports the innovative character of this work.

In addition to the advantages of the present research, some limitations were identified but they are intended to be overcome in future work. Actually, the fact that intact groups were used, that is, that they are not formed randomly or in pairs, but were already formed before the investigation, poses problems in the internal and external validity (Weiss, 1990). Thus, a limitation of the study is the impossibility of generalization of the obtained results, along with other characteristics of the sample. However, it is important to emphasize the ecological validity of the research, carried out in the natural context of learning, which contributes to increase the external validity.

Despite the limitations that are identified, it is considered that the study is appropriate, innovative and with relevant implications for the educational practice with children with ID, in SEC promotion. The results obtained allow us to make available to the educational community an instrument to promote SEC among children with ID, and to offer the scientific community a programme that can be used in new research with other groups with learning needs.

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Discussion and final considerations

The success of the human being throughout his school life, from elementary to higher education, and even in his career, is influenced not only by academic competences, but also by socio-emotional ones.

Despite the importance that schools give to the development of cognitive abilities, the focus has gradually changed about encouraging the development of socio-emotional, interpersonal and moral aspects of students. The purpose of education is therefore to prepare students - academically, socially and emotionally - for success, today and in the future. More specifically, the objective is to help all students, with or without ID, to reach their full potential - consistent with their own personal interests and aspirations - and to well interact with others (Dusenbury & Weissberg, 2017).

Many children with SEN experience substantial difficulties in establishing and maintaining positive relationships with adults and peers as personal characteristics, competences and actions differentiate and prevent them from integrating into groups (Beamish & Saggers, 2013). Because interaction is a bidirectional process and positive interactions are the foundation for relationships, teachers should often and positively interact with these groups of students, setting an example for the entire educational community (Beamish & Saggers, 2014).

True inclusion involves all students in social and academic life within the classroom and throughout the school. As the journey towards inclusion progresses, children of the same age enter classrooms around the world with different learning strengths and challenges, knowledge, cultures, languages and experiences (Karangwa, Miles, & Lewis, 2010). Twenty--first century learning occurs in various communities, students interact with their teachers, collaborate with diverse peers, and bring with them the values and knowledges of their families. To develop the abilities to effectively communicate, learn, and interact with others in a global world, SEL emerges as a key instrument which, among other things, teaches empathy, perspective taking, respect for diversity and leadership abilities, being increasingly needed to be integrated throughout the school experience (Katz e Porath, 2011).

Students' SEC development is determined by policies, programmes and practices that enable a greater ability to understand and manage emotions, define and achieve positive goals, and make responsible decisions (Durlak, Domitrovich, Weissberg & Gullota, 2015). Teachers daily deal with students with different motivations to become involved in learning, to behave

positively, and to perform well academically. Thus, SEL provides a basis for a safe and positive learning and enhances students' ability to succeed in school, career and life (Weissberg, 2016).

However, in order for teachers and educators to be able to help students with ID to develop their SEC, they have to take into account two essential points: (1) they must change how they think about the needs of these students, seeing them as children who need help to develop abilities and strengths to meet school expectations, instead of assuming that they can eliminate their problems, imposing firm consequences or limits; (2) they must inquire how existing SEL programmes can be adapted to the characteristics and needs of these students (Lightenstein, 2016).

The truth is that the focus on SEL has been reduced and intervention programmes were not initially intended for children with ID, although they were later tested in this population as it can be seen in chapter 1. Programmes such as "Promoting Alternative Thinking Strategies" (PATHS) (Greenberg & Kuché, 1993), the "Emotional Education Programme" of the *Grupo de Recerca en Orientació Psicopedagogica* (GROP) (Bisquerra, 2003) or "Zippy's friends" (Mishara & Ystgaard, 2006) were designed for children without SEN but were later tested in this population being the results very encouraging. Other programmes that have not been tested in children with ID, due to their characteristics, are considered appropriate and easy to adapt, such as *Crescer a brincar* (Pereira & Moreira, 2000), "Incredible Years" (Webster--Stattron & Reid, 2004) or *Vamos sentir com o Necas* (Maia, sd). Thus, considering and analysing all the characteristics of the programmes mentioned above, the program "Smile, Cry, Scream and Blush" emerges as an instrument that couples the needs, strategies and materials that are considered most appropriate for use with children with ID, considering their characteristics.

In this line, the main objectives of this thesis were the construction and validation of the SEL programme efficacy in children with ID in the central region of Portugal. Since SEL programmes that were accessed were not constructed with this population in mind (Lightenstein, 2016), it is intended to fill this gap, as well as to highlight the need and importance of promoting SEC in these children. Therefore, it is possible to affirm the innovative nature of the present study, since it considered the specificities of the children and young people with ID during the construction of the programme.

As it can be seen in Chapter 2, the construction of the programme followed all the procedures considered in the construction of an intervention instrument, having appealed to specialists in the socio-emotional development area, to children with ID, and a pilot-study has been performed as a way of measuring its effectiveness with a view to correct, alter or improve some aspect, which has proved not to be necessary. In this way, we proceeded to Chapter 3 that focuses precisely on the empirical study carried out with the programme "Smile, Cry,

Scream and Blush", with a sample of 50 subjects diagnosed with mild ID and attending School Groupings in the central zone of the country. The results obtained in this study evidence that the programme is effective in the development of SEC in subjects with ID. The total results obtained in the pre-test of the control group and in the experimental group and in the post--test of both groups evidenced the notoriously positive effects that the intervention programme had with the experimental group.

The findings of this study corroborate recent studies that suggest that SEL programmes work as a tool of empowerment and protection of children with ID (Cavioni, Ornaghi & Grazzani, 2017) clearly contributing to positive results not only in the identification, expression, regulation and management of emotions, but also in the reduction of aggressive and antisocial behaviours, as well as the reduction of depressive symptoms (Wilson & Lipsey, 2007; Horowitz & Garber, 2007). Identically, other studies suggest that SEL programmes have a significant impact on children with ID with regard to positive attitudes towards themselves, others, and learning, as well as the improvement of prosocial behaviour and learning in general (Sklad, Diekstra, De Ritter, Ben & Gravesteijn, 2012; Taylor, Oberle, Durlak, & Weissberg, 2017). In fact, socio-emotional wellbeing is critical to academic and personal success. Because SEC have positive effects on school adjustment, academic performance, and overall health, they are not taken for granted (Beamish & Saggers, 2014). SEL has gradually become an important theme in education policy, in the curricular structures and in the practices adopted in the classroom. Consequently, teachers begin to feel that they must provide SEL experiences to all their students, including those with ID; however, at the level of research, there are few SEL programmes for children with ID. School curricula do not include disciplinary areas, activities or projects directed to this population, so the dissemination of the present study brings a scientific, social and educational contribution to overcome this gap, and emerges as an added value, since it is something original in the Portuguese population, comprising a high N with regard to the study population and the application of an intervention programme.

The objectives of the study were achieved, having been shown the effectiveness of a programme directly designed to promote SEC in children ID. This programme was built from scratch based on short stories, duly illustrated, making use of play materials to be implemented during eight sessions, lasting 30-40 minutes each session (Faria, Esgalhado & Pereira, 2017).

Throughout the eight sessions, the children were completely involved in the activities, showing a permanent motivation, from the beginning to the end of each session. The initial motivation of each session led the children to want to anticipate what would come next, demonstrating genuine willingness to participate in all activities. After about 40 minutes of interaction, complicity and smiles, with an astonished and sad face, children always said they had not given by the course of time.

From the comparison with the results of studies that applied programmes to promote SEC, it must be pointed out that the present study does not confirm the results of the research carried out with PATHS. In this study, no significant differences were found in the experimental group for the SEC trajectories, but there was, however, a significant difference in the experimental group regarding the rate of change in the evaluations of students' internalizing behaviours (Kam, Greenverg & Kuché, 2004). However, studies carried out with "Zippy's friends" show positive long-term effects in developing coping strategies in children, in communication with peers and in the identification of emotional needs (Wong, 2008; Monkevičienė, 2014). Another programme applied to children with SEN, PARES, demonstrates its effectiveness in the use of SEC (Borges & Coelho, 2015), which is in line with the results obtained in the study performed by Rothwell, Piatt and Mattingly (2006), being observed that students with SEN, after a SEC training, present a decrease in inappropriate/maladjusted behaviours and tend to increase their levels of social involvement and academic commitment.

Despite the positive results obtained with the implementation of the programme, it is considered that students would benefit from the application of additional procedures. Long--term follow-up by the teachers of the class is suggested as well as the use of the programme language in more individualized training sessions, special reinforcement programmes, or the articulation of programme content with the various disciplinary areas of the curriculum. Another of the additional procedures is family monitoring. When families are supported, home can provide the best conditions to promote SEC and this involves not only sharing specific information about the child and targeted learning, but also making connections to practices at home (Beamish & Saggers, 2014). SEL for these children is reinforced when there is a strong alignment between home and school, and teachers and educators need not only to encourage but also to support families in these efforts.

In order to reach the "Smile, Cry, Scream and Blush" programme, other SEL programmes were previously analysed, programmes that aim to provide children with environments for support and reinforcement of emotional recognition, regulation, empathy, prosocial goal setting and problem-solving abilities. It is intended that these become generalized to out-of-school experiences and prepare the child for the roles he will play in the future. The analysis performed in this study confirmed the shortage in programmes directed to children with ID, being this the main motivation of the study, due to its innovative character and for the benefits it would bring to these children. The construction of the programme always took into account the characteristics of the target audience and the results of the empirical study demonstrated that school-age children diagnosed with mild ID, when submitted to the intervention programme, showed a significant improvement with respect to: (1) identification of emotions; (2) understanding the external causes of emotions; (3) understanding of the emotions caused by desires; (4) understanding of beliefs based on emotions; (5) understanding the influence of remembrance in circumstances of evaluation of emotional

states; (6) understanding the possibilities of controlling or regulating emotional experiences; (7) understanding the possibility of hiding an emotional state; (8) understanding that a person may present multiple or even contradictory (ambivalent) emotional responses to a particular situation and (9) understanding the influence of morality on the emotions.

SEC appear to be decisive and differentiating for a status of success and general wellbeing, as well as an aid to the adverse situations that the child will have to face through life. There is evidence that the development of SEC is crucial for the adaptation of children to the demands of society in order to respond to the complex needs of their own growth and development (Greenberg et al., 2003). Since school is a privileged place for social relationships between children and young people with and without ID, and since children spend most of their day at this place it is important for school to be a promoter of SEC in a systematic way, intervening in an effective, promotional or preventive way, with programmes for these competences (Bird & Sultman, 2010; Merrel & Gueldner, 2010). When implemented in articulation with the family and the community, SEL programmes aimed at children and young people in a school context can play an even more decisive role in healthy psychological development, with positive repercussions in adulthood (Epstein & Dauber, 1991).

Limitations of the study and suggestions for future research

Almost all studies have limitations that they try to control, not always successfully. In this way, this investigation also presents some aspects that, in the future, can be modified.

One of them relates to the empirical study sample, described in chapter 3, a sample for convenience. Considering that the control group consisted of 44,8% (n=13) of subjects attending the first cycle and 55,2% (n=16) attending the second cycle, and the experimental group consisted of 66,7% (n=14) of subjects attending the first cycle and 33,3% (n=7) attending the second cycle, it is considered important to apply the programme to a random, broader and more homogeneous sample at the school level. Likewise, gender homogeneity is considered a limitation, as the number of boys prevailed over the number of girls, both in the control group, which included 48,3% (n=14) of girls and 55,2% (n=15) of boys, as in the experimental group, which included 42,9% (n=9) of girls and 57,1% (n=12) of boys. It is also considered relevant to apply the programme to mixed groups, including children with and without ID, belonging to the same or different classes, which would allow us to observe if children with ID show similar behaviours of children without ID, or if children with ID are

autonomous in their responses or if, on the contrary, they resort to the help of their peers without ID. In the future, it is also considered relevant to measure the implications of the programme at the academic level, as has been the case in previous studies with children without ID (Wang, Haertel, & Walberg, 1993; Zins, Bloodworth, Weissberg & Walberg, 2004). This variable was not considered in this study because the necessary conditions were not met.

Actually, all those involved in the educational process want children to succeed in their personal, academic and social lives, to have the motivation and ability to establish positive relationships with adults and peers in order to be able to adapt themselves to the demands of growth and development and to make responsible decisions that contribute to their wellbeing while avoiding risky behaviour. To help children in performing these tasks, the school is challenged to offer more than a basic traditional education being encouraged to involve all participants in the educational process. In this way, the training of groups of parents and teachers is considered essential to promote the continuity of the SEL programme, not only in schools but also in the family, thus involving the whole educational community. Additionally, it is considered pertinent to carry out a follow-up with the subjects that integrate the programmes.

With regard to teachers' intervention in the promotion of children's SEC, it is also considered relevant that, together with an affective relationship and a responsive pedagogy, it signals acceptance and encouragement behaviours that promote inclusion and respect for individual educational needs, ensuring a sense of belonging and reducing experiences of humiliation and failure (Hamre & Pianta, 2006).

Although the importance of individual programmes and specific interventions is not removed, SEL supports SEC learning as well as the academic competences of students with ID in a conventional and at the same time inclusive classroom. It is considered that this type of intervention avoids the labelling and stigmatization that can result from individualized interventions, besides supporting the inclusion of students with ID, helping them to develop such abilities, good working habits, collaboration and healthy relationships, besides improving the equality of values among colleagues (Bhan & Farooqui, 2013; Cefai et al., 2015; (Cavioni & Zanetti, 2015).

When we talk about inclusion, there is an almost immediate association to the theme of special education and SEN, which is historically justified because inclusion is born associated with the education of groups that are more vulnerable to exclusion because they have a different educational need. However, today the concept goes far beyond this association, since inclusion is a prospect for all students. An inclusive school is conceived as a privileged space to deal with diversity, cultural and social differences, as well as to fight the situation of inequality and exclusion in which children live.

Hence, all students should have the same opportunities, being that the peer interaction in inclusive classes provides children with the opportunity to develop and expand their SEC repertoire. It is therefore essential to intervene in this direction in order to promote those competences, through specific programmes to promote their development.

Participating in an inclusive school involves learning alongside others and collaborating with them in shared lessons. It also involves an active commitment to what is learned and taught and to have a say on how education is experienced. "But to participate also means to be recognized and accepted on its own: I participate with you when you recognize me as a person like you and accept me for what I am" (Booth, 2003, p.2).

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Appendices

Appendix A

A.1. Certificate of presentation of the paper "Measurements to Assess and Programmes to Promote SEC in Children with ID".

CERTIFICATE OF PRESENTATION

Measurements to assess and programmes to promote SEC in children with ID

AWARDED TO

Sónia Maria de Matos Faria

who attended

The International Conference on Education & Educational Psychology (ICEEPSY) 2016

October 11-15 Rhodes - Greece

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Future Academy
Dr Hugh Glenn
Professor Emeritus
California, USA

Managing Director
Future Academy
Dr Zafer Bekirogullari
CPsychol, AFBPsS (BPS)
HCPC Registered Counselling Psychologist
United Kingdom

Appendix B

B.1. Email messages to and from TEC authors, Professor Francisco Pons and Professor Antonio Roazzi, with authorization to use the test.

Caro Doutor Antonio Roazzi,

o meu nome é Sónia, sou docente do Instituto Politécnico de Castelo Branco e encontro-me a realizar doutoramento em educação na Universidade da Beira Interior, sob orientação da Doutora Graça Esgalhado (UBI) e coorientação da Doutora Cristina Pereira (IPCB).

Estou a desenvolver um projeto no qual pretendo construir um programa de promoção de competências socioemocionais para crianças com Incapacidade Intelectual, sendo necessário, porém, um instrumento para realizar pré e pós testes, algo que se tem revelado difícil.

Entretanto, tive conhecimento do *Test of Emotion Comprehension* e daí o meu contacto, obtido através da Doutora Ana Rocha.
Gostaria de saber, se possível, se se trata de um instrumento adequado a crianças com Incapacidade Intelectual e como se pode adquirir o mesmo. Caso não esteja disponível, gostaria de saber se é possível ser cedido, assim como as normas de cotação, e autorizada a sua utilização, garantindo que a autoria é sempre mantida. Agradeço, desde já, toda a atenção.

Com os melhores cumprimentos,

SF

ter 05/04/2016, 10:14

Caro Doutor Francisco Pons,

o meu nome é Sónia, sou docente do Instituto Politécnico de Castelo Branco e encontro-me a realizar doutoramento em educação na Universidade da Beira Interior, sob orientação da Doutora Graça Esgalhado (UBI) e coorientação da Doutora Cristina Pereira (IPCB).

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Com os melhores cumprimentos,

SF

Francisco Pons <francisco.pons@psykologi.uio.no>

qua 06/04/2016, 09:38

Pons et al (EJPE 2002).pdf
771 KB

Dear colleague,

Thank you for your interest in our research. The TEC-1 has been used with mentally challenged people (mentally retarded, down). If you want I can send you a recent chapter in French where we are reviewing research seeking to improve children's emotions understanding by the mean of different intervention programmes (PATH, SMILE, P4C, and Mindfulness, etc.). Meanwhile I attach an old empirical article related to the subject.

Regarding you second question, I advise you contact Prof. Antonio Roazzi (University of Recife) who is charge of the production and distribution of TEC-1 in the Portuguese speaking world.

Don't hesitate to contact again.

Best, Francisco

P.S.: We are in the process of finishing the second version of the TEC (TEC-2) and it should be available by the beginning of next year.

sáb 30/04/2016, 22:43
Sónia Maria de Matos Farias
Doutoramento

Cara Sonia,
Demorei por estar viajando em uma licença sabatica.
O TEC nao está a venda, ainda, mas para pesquisa
de acordo com certas regras pode ser disponibilizada.
Assim te envio, a versao para o Portugal.
Depois te envio um documento *TEC - Condition of Use*
para vc assinar e depois me enviar.
Qt a poder ser utilizados com criancas com Incapacidade Intelectual
penso que pode ser utilizado.
Tem um projeto mais detalhado para examinar?
Se sim, poderia me enviar e avaliar melhor visando
 dar uma resposta mais precisa.
Abs
Antonio

Antonio Roazzi <roazzi@gmail.com>

ter 03/05/2016, 12:14
Sónia Maria de Matos Farias
Doutoramento

Sonia
Irei te enviar a normas de cotacao juntamente com o *TEC - Condition of Use*
Aguarde um pouco.
O importante agora é ter o teste.
Abs
Antonio

Antonio Roazzi
Professor Titular (Full Professor), Depto Psicologia
Coordenador do Núcleo de Pesquisa em Epistemologia Experimental e Cultural (NEC)
Universidade Federal de Pernambuco
CFCH 8o andar, Av. Arquitetura s/n, Cidade Universitária,
CEP 50740-550, Recife PE, Brasil
http://www.ufpe.br/psicologia/cognitiva.htm
E-mail: **roazzi@gmail.com**   - **Skype: antonio_roazzi**
http://lattes.cnpq.br/6108730498633062

Antonio Roazzi <roazzi@gmail.com>

seg 31/10/2016, 18:41

TEC - Condition of Use in Brazil.docx
20 KB
Prezada Sonia,
Por favor assine este termo de Condition of Use
e envie para o meu endereço visto que a Universidade está ocupada.

Antonio Roazzi
Rua Francisco da Cunha, 654, apto 801
Edf. Villa das Pedras
510120-041 Recife, Pe
Fone: 81 30977742

Logo em seguida enviarei o TEC.
Antonio Roazzi

Antonio Roazzi
Professor Titular (Full Professor),
Coordenador do Núcleo de Pesquisa em Epistemologia Experimental e Cultural (NEC)
Universidade Federal de Pernambuco
CFCH 8o andar, Av. Arquitetura s/n, Cidade Universitária,
CEP 50740-550, Recife PE, Brasil
Tel.: +55 81 3097.7742 (Vivo) / 99907.5445 (Tim)
http://www.ufpe.br/psicologia/cognitiva.htm
E-mail: **roazzi@gmail.com**   - **Skype: antonio_roazzi**
http://lattes.cnpq.br/6108730498633062

Appendix C

C.1. Certificate of presentation of the paper "Smile, Cry, Scream and Blush – Promote SEC in Children with ID".

CERTIFICATE OF PRESENTATION

Smile, Cry, Scream and Blush - Promote SEC in Children With ID

AWARDED TO

Sónia Maria de Matos Faria

who attended

The International Conference on Education & Educational Psychology (ICEEPSY) 2017

October 11-14 Porto - Portugal

FUTURE
Academy®

offering Excellence in Social & Behavioural Sciences

Deputy President
Future Academy
Dr Hugh Glenn
Professor Emeritus
California, USA

Managing Director
Future Academy
Dr Zafer Bekirogullari
CPsychol, AFBPsS (BPS)
HCPC Registered Counselling Psychologist
United Kingdom

Appendix D

D.1. Request to experts in socio-emotional development for validation of the programme's illustrations.

Covilhã e UBI, 3 de março de 2017

Exmo (a). Doutor (a)

No âmbito da realização da tese de doutoramento em educação, a realizar na Universidade da Beira Interior, sob orientação da Professora Doutora Graça Esgalhado e coorientação da Professora Doutora Cristina Pereira, encontro-me a construir um programa de promoção de competências socioemocionais com recurso a ilustrações que pretendem representar um conjunto de emoções.

Nesse sentido, venho pedir-lhe a sua colaboração como juiz para indicar se considera que as imagens supracitadas representam, efetivamente, as emoções que se pretendem invocar.

Para tal, solicita-se que se pronuncie relativamente a cada imagem, assinalando se ela se associa, ou não, à emoção que se pretende evidenciar, utilizando a folha de resposta em anexo.

Agradeço, desde já, toda a atenção e colaboração.

Com os melhores cumprimentos,

Sónia Faria

Assinale com um X se concorda (S) ou discorda (N) com a associação da emoção à respetiva ilustração:

Ilustração	Alegria		Tristeza		Raiva		Vergonha		Medo		Orgulho	
	S	N	S	N	S	N	S	N	S	N	S	N
Coradinho												
Pedri												
Esponjinha												
Tartaruga Sisu												
Caracol Chorinho												
Bruxinha Verruga												
Serafim Zangadim												
Safira												
Jaime												

Appendix E

E.1. Request for permission to parents of children with and without ID to apply a questionnaire aiming the validation of the programme's illustrations.

Departamento de
Psicologia e Educação

Covilhã e UBI, 3 de março de 2017

Exmo Sr. Encarregado de Educação,

No âmbito da realização da tese de doutoramento em educação, a realizar na Universidade da Beira Interior, sob orientação da Professora Doutora Graça Esgalhado e coorientação da Professora Doutora Cristina Pereira, encontro-me a construir um programa de promoção de competências socioemocionais com recurso a ilustrações que pretendem representar um conjunto de emoções.

Nesse sentido, venho pedir-lhe autorização para que o seu educando possa indicar se considera que as imagens supracitadas representam, efetivamente, as emoções que se pretendem invocar.

Para tal, solicita-se que se pronuncie relativamente a cada imagem, assinalando se ela se associa, ou não, à emoção que se pretende evidenciar, utilizando a folha de resposta em anexo que eu preencherei com as suas indicações.

Agradeço, desde já, toda a atenção e colaboração.

Com os melhores cumprimentos,

Sónia Faria

Assinale com um X se concorda (S) ou discorda (N) com a associação da emoção à respetiva ilustração:

Ilustração	Alegria		Tristeza		Raiva		Vergonha		Medo		Orgulho	
	S	N	S	N	S	N	S	N	S	N	S	N
Coradinho												
Pedri												
Esponjinha												
Tartaruga Sisu												
Caracol Chorinho												
Bruxinha Verruga												
Serafim Zangadim												
Safira												
Jaime												

Appendix F

F.1. Request for permission to parents to include their children in the empirical study.

Covilhã e UBI, 3 de outubro de 2016

Exmo. Sr. Encarregado de Educação,

Eu, Sónia Maria de Matos Faria, docente no Instituto Politécnico de Castelo Branco e no Agrupamento de Escolas nº2 de Abrantes, encontro-me a desenvolver um estudo sobre o desenvolvimento socioemocional em crianças entre os 7 e os 12 anos, no âmbito do Doutoramento em Educação na Faculdade de Ciências Sociais e Humanas da Universidade da Beira Interior.

O estudo em questão envolve a construção e implementação de um programa de promoção de competências socioemocionais, no qual se pede aos alunos que realizem uma atividade sobre reconhecimento de expressões emocionais. Os alunos beneficiam com a realização destas provas, uma vez que constituem um modo de promover nas crianças as referidas competências, tão importantes para o sucesso académico, social e pessoal.

Para poder dar seguimento ao meu trabalho, venho solicitar a V. Exª. autorização para proceder à aplicação do referido teste ao seu educando. É garantida a confidencialidade e os resultados são tratados de forma anónima, assim como não se registam quaisquer outros dados relativos ao aluno, excepto a idade.

Agradecendo a colaboração do seu educando, apresento os melhores cumprimentos,

_____

(Sónia Maria de Matos Faria)

****

Autorizo o(a) meu (minha) educando(a) _____,
aluno(a) do _____ ano de escolaridade, a participar no estudo.

O Encarregado de Educação,

_____ Data: ___/___/2016

Appendix G

G.1. Authorization of the school groupings' Directors.

Departamento de
Psicologia e Educação

Covilhã e UBI, 1 de outubro de 2016

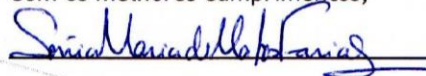Exmo. Sr. Diretor do Agrupamento de
Escolas nº 2 de Abrantes

Eu, Sónia Maria de Matos Faria, docente no Instituto Politécnico de Castelo Branco e no Agrupamento de Escolas nº2 de Abrantes, encontro-me a desenvolver um estudo sobre o desenvolvimento socioemocional em crianças com Incapacidade Intelectual, no âmbito do Doutoramento em Educação na Faculdade de Ciências Sociais e Humanas da Universidade da Beira Interior, sob orientação da Professora Doutora Graça Esgalhado e coorientação da Professora Doutora Cristina Pereira.

O estudo em questão envolve a construção e implementação de um programa de promoção de competências socioemocionais, sendo que será necessária a aplicação de um pré-teste e um pós-teste.

Para poder dar seguimento ao meu trabalho, venho solicitar a V. Exª. autorização para proceder à aplicação do referido teste e do programa a crianças entre os sete e os doze anos, com Incapacidade Intelectual, do Vosso agrupamento. A aplicação do teste é individual e a aplicação do programa será em pequenos grupos, sendo assegurados todos os procedimentos éticos, como a confidencialidade dos resultados e a autorização prévia dos encarregados de educação.

Desde já agradeço a disponibilidade e colaboração de V. Exª, sem a qual não será possível avançar na investigação, nem será possível o surgimento de novos programas de intervenção que virão a beneficiar toda a comunidade escolar.

Com os melhores cumprimentos,

(Sónia Maria de Matos Faria)

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FACULDADE CIÊNCIAS SOCIAIS E HUMANAS

**Departamento de
Psicologia e Educação**

Autorizo a realização do estudo, após contacto c/ Todos os E. Educação.

P.Branco, 4/11/2016

Covilhã e UBI, 4 de novembro de 2016

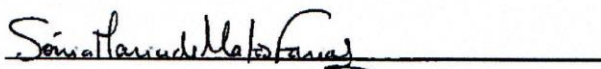Exmo. Sr. Diretor do Agrupamento de Escolas Afonso de Paiva

Eu, Sónia Maria de Matos Faria, docente no Instituto Politécnico de Castelo Branco e no Agrupamento de Escolas nº2 de Abrantes, encontro-me a desenvolver um estudo sobre o desenvolvimento socioemocional em crianças com Incapacidade Intelectual, no âmbito do Doutoramento em Educação na Faculdade de Ciências Sociais e Humanas da Universidade da Beira Interior, sob orientação da Professora Doutora Graça Esgalhado e coorientação da Professora Doutora Cristina Pereira.

O estudo em questão envolve a construção e implementação de um programa de promoção de competências socioemocionais, sendo que será necessária a aplicação de um pré-teste e um pós-teste.

Para poder dar seguimento ao meu trabalho, venho solicitar a V. Exª. autorização para proceder à aplicação do referido teste e do programa a crianças entre os sete e os doze anos, com Incapacidade Intelectual, do Vosso agrupamento. A aplicação do teste é individual e a aplicação do programa será em pequenos grupos, sendo assegurados todos os procedimentos éticos, como a confidencialidade dos resultados e a autorização prévia dos encarregados de educação.

Desde já agradeço a disponibilidade e colaboração de V. Exª, sem a qual não será possível avançar na investigação, nem será possível o surgimento de novos programas de intervenção que virão a beneficiar toda a comunidade escolar.

Com os melhores cumprimentos,

(Sónia Maria de Matos Faria)

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Covilhã e UBI, 1 de outubro de 2016

Exma. Sra. Diretora do Agrupamento de
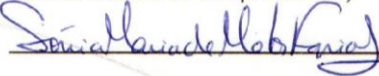Escolas José Sanches de Alcains e S.
Vicente da Beira

Eu, Sónia Maria de Matos Faria, docente no Instituto Politécnico de Castelo Branco e no
Agrupamento de Escolas nº2 de Abrantes, encontro-me a desenvolver um estudo sobre o
desenvolvimento socioemocional em crianças com Incapacidade Intelectual, no âmbito do
Doutoramento em Educação na Faculdade de Ciências Sociais e Humanas da Universidade da
Beira Interior, sob orientação da Professora Doutora Graça Esgalhado e coorientação da
Professora Doutora Cristina Pereira.

O estudo em questão envolve a construção e implementação de um programa de promoção
de competências socioemocionais, sendo que será necessária a aplicação de um pré-teste e
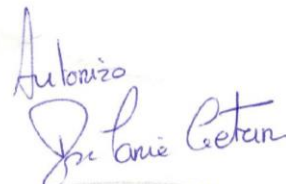um pós-teste.

Para poder dar seguimento ao meu trabalho, venho solicitar a V. Exª. autorização para
proceder à aplicação do referido teste e do programa a crianças entre os sete e os doze
anos, com Incapacidade Intelectual, do Vosso agrupamento. A aplicação do teste é individual
e a aplicação do programa será em pequenos grupos, sendo assegurados todos os
procedimentos éticos, como a confidencialidade dos resultados e a autorização prévia dos
encarregados de educação.

Desde já agradeço a disponibilidade e colaboração de V. Exª, sem a qual não será possível
avançar na investigação, nem será possível o surgimento de novos programas de intervenção
que virão a beneficiar toda a comunidade escolar.

Com os melhores cumprimentos,

(Sónia Maria de Matos Faria)

Autorizo

1 1102 2016

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Appendix H

H.1. Data questionnaire filled by parents and caregivers of the subjects included in the study.

Questionário sociodemográfico

Nome da criança: _____

Data de nascimento: ___/___/_____   Género: F ☐   M ☐   Ano de escolaridade: _____

Escola: _____

Nacionalidade: _____ Local de residência: _____

Habilitações académicas do pai: _____ Habilitações académicas da mãe: _____

Profissão do pai: _____ Profissão da mãe: _____

Tem irmãos? Sim ☐   Não ☐ Se sim, quantos? _____ Com que idades? _____

Com quem vive a criança: _____

A criança usa óculos? Sim ☐   Não ☐

Há alguém na família com dificuldades na perceção da cor? Sim ☐   Não ☐ Se sim, quem? _____

Dados fornecidos por: Mãe ☐ Pai ☐   Outro ☐ Quem?_____ Estado civil: _____

Outras informações que queira referir: _____

_____

Obrigada pela sua colaboração!

Appendix I

I.1. Proof of paper submission

Journal of Applied Research in Intellectual Disabilities
<onbehalfof@manuscriptcentral.com>

ter 08/05, 23:21
Sónia Maria de Matos Farias;
Sónia Maria de Matos Farias;
mgpe@ubi.pt;
08-May-2018

Dear Dr. Faria:

Your manuscript entitled "Efficacy of a Socio-emotional Learning Programme in a sample of Children with Intellectual Disability" by Faria, Sónia Maria de; Esgalhado, Graça; Pereira, Cristina, has been successfully submitted online and is presently being given full consideration for publication in Journal of Applied Research in Intellectual Disabilities.

Co-authors: Please contact the Editorial Office as soon as possible if you disagree with being listed as a co-author for this manuscript.

Your manuscript ID is JARID-05-2018-OA-0105.

Please mention the above manuscript ID in all future correspondence or when calling the office for questions. If there are any changes in your street address or e-mail address, please log in to ScholarOne Manuscripts at https://mc.manuscriptcentral.com/jarid and edit your user information as appropriate.

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Your article cannot be published until the publisher has received the appropriate signed license agreement. Within the next few days the corresponding author will receive an email from Wiley's Author Services system which will ask them to log in and will present them with the appropriate license for completion.

Thank you for submitting your manuscript to Journal of Applied Research in Intellectual Disabilities.

Sincerely,
Journal of Applied Research in Intellectual Disabilities Editorial Office